TOPFIELD

SRP-2410

User Guide

High Definition
Digital Satellite Receiver
Personal Video Recorder
Common Interface

DVB
Digital Video
Broadcasting

Contents

Contents ii

1 Introduction 1
- 1.1 Features . . . 1
- 1.2 Controlling the digital receiver . . . 2
  - 1.2.1 Front panel . . . 3
  - 1.2.2 Remote control . . . 4
- 1.3 Common Interface . . . 7

2 Setup 8
- 2.1 Unpacking . . . 8
- 2.2 Safety precautions . . . 8
- 2.3 Rear panel connections . . . 10
- 2.4 Connecting up your digital receiver . . . 12
  - 2.4.1 Connecting to the antenna . . . 13
  - 2.4.2 Connecting to your television set . . . 14
  - 2.4.3 Connecting to your video recorder . . . 17
- 2.5 Switching on for the first time . . . 17

3 Service Search 19
- 3.1 Searching for broadcasting services . . . 19
  - 3.1.1 Configuring LNB settings . . . 20
  - 3.1.2 Configuring DiSEqC 1.2 settings . . . 22
  - 3.1.3 Configuring USALS settings . . . 23
  - 3.1.4 Searching for services . . . 25

3.2 Copying services 28
3.3 Editing the transponder list 29
3.4 Resetting to factory settings 30
3.5 Resetting to user settings 30
3.6 Clearing the services list 32

4 Preference Settings **33**
4.1 Language settings 33
4.1.1 Menu language 33
4.1.2 Subtitle language 34
4.1.3 Hard of Hearing 34
4.1.4 Audio language 34
4.2 Video and audio settings 35
4.2.1 High definition television 35
4.2.2 Television aspect ratio 36
4.2.3 Colour format 37
4.2.4 Another video device 37
4.2.5 Audio mode 38
4.3 Local time setting 38
4.4 Parental control 41
4.5 To use MediaHighway programme guide 42
4.6 Options for recording 43
4.7 Options for playback 44
4.8 Options for on-screen display 45
4.9 Options for the front display 46
4.10 Options for standby mode 47

5 Every Day Use **48**
5.1 Volume control 48
5.2 Watching television 48
5.2.1 The services list 48
5.2.2 The favourite service lists 50
5.2.3 Viewing programme information 51
5.2.4 Selecting audio tracks 53
5.2.5 Selecting subtitle tracks 53
5.2.6 Viewing teletext 53

5.3 Viewing electronic programme guide . . . 53
5.4 Watching multifeed programme . . . 54
5.5 Using time-shift . . . 55

6 Organising Services **57**
6.1 Editing the services list . . . 57
6.2 Editing the favourite lists . . . 59
6.3 How to use on-screen keyboard . . . 61

7 Recording and Playback **62**
7.1 Recording a programme . . . 63
7.1.1 Instant recording . . . 63
7.1.2 Timer recording . . . 65
7.1.3 Scheduling recordings using the programme guide . . . 68
7.1.4 Recording a time-shifted programme . . . 68
7.1.5 Recording a pay service programme . . . 69
7.2 File archive . . . 69
7.2.1 To delete a recording . . . 70
7.2.2 To sort recordings . . . 70
7.2.3 To lock a recording . . . 70
7.2.4 To rename a recording . . . 71
7.2.5 To make a new folder . . . 71
7.2.6 To move a recording to another folder . . . 71
7.3 Playing back a recording . . . 71
7.3.1 To navigate using the progress bar . . . 72
7.3.2 To play in slow motion . . . 73
7.3.3 To play in fast motion . . . 73
7.3.4 To make a bookmark . . . 73
7.3.5 To play back a recording repeatedly . . . 74
7.3.6 To play back recordings in sequence . . . 74
7.3.7 To play back a scrambled recording . . . 75
7.4 Editing a recording . . . 76
7.5 Copying a recording . . . 76
7.6 Formatting the hard disk . . . 77

8 Entertainment **78**

8.1 Copying files . . . 78
8.2 Playing back MP3 files . . . 80
8.3 Playing back a video file . . . 80
8.4 Network game . . . 81
8.4.1 Single mode . . . 81
8.4.2 Network mode . . . 86

9 Accessing via Network **87**
9.1 Configuring the router . . . 88
9.1.1 To access within the local area network . . . 88
9.1.2 To access over the Internet . . . 89
9.2 Configuring the network setting on the digital receiver . . . 90
9.3 Accessing the web server . . . 91
9.4 Accessing the FTP server . . . 93

10 Topfield Application Program **96**

11 Firmware Update **99**
11.1 From a memory stick . . . 99
11.2 From the firmware server via the Internet . . . 100
11.3 Over the air . . . 101

A Universal Remote Control **102**
A.1 Code list for television sets . . . 105
A.2 Code list for DVD players . . . 119
A.3 Code list for audio-video receivers . . . 121

Index **123**

Chapter 1

Introduction

The SRP-2410 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard. For its operation you need an antenna, which must be installed appropriately.

NOTE

In general we equate a channel with a frequency. However, unlike analogue broadcasts, digital broadcasts are not all assigned to their own frequencies; instead, multiple television broadcasts are transmitted through a single frequency. The frequency in digital broadcasting is usually called transponder or multiplex. To reduce confusion in this manual, the word **service** is preferably used than **channel** as a term to indicate one television or radio broadcast.

1.1 Features

This digital receiver has the following features:

- Supports DiSEqC 1.0, DiSEqC 1.1, DiSEqC 1.2 and USALS protocols.

- Can store up to 10,000 television and radio services.
- You can edit the services list.
- Can create lists of your favourite services.
- Can view information about the current television or radio programme.
- Has an electronic programme guide that provides an overview of scheduled programmes.
- You can record one service while you are currently watching another.
- You can record many programmes using a built-in hard drive with large storage capacity.
- Time-shift is a special technical feature available on this digital receiver. You can pause a programme you are watching and resume it again at a later time. Then you can quickly go to any part of the current programme by fast forward or rewind search.
- If you have an external hard drive connected to the digital receiver via the USB or eSATA port, you can record television programmes into it.
- You can play back video files of various formats including DivX.
- You can play a built-in network game with other users via the Internet.

1.2 Controlling the digital receiver

You can operate the digital receiver with the remote control or the buttons on the front panel.

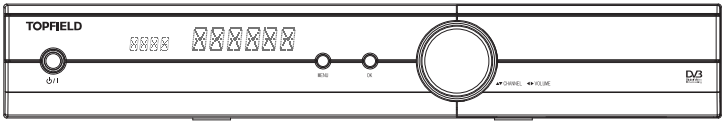
NOTE

When the digital receiver is off but plugged into a wall socket, we say that it is in standby mode; on the other hand, when it is on, it is in active mode. Even when you are not using the digital receiver, you should keep it plugged into

a wall socket to be in standby mode so that it can run timer events at any time.

1.2.1 Front panel

The front panel of the digital receiver has buttons to control the digital receiver, specific lights and a display to indicate its status. The following indicates what they mean.



⏻/❙ button switches the digital receiver between standby mode and active mode. This button has a tiny light on its left edge, which lights up in red in standby mode if the Standby Mode option is set to Passive. See §4.10 for more details.

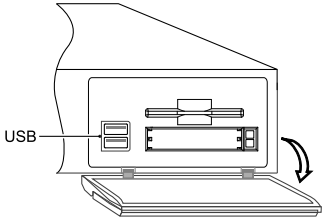
Front display shows the current time in standby mode, and displays the current service in active mode.

MENU button displays the main menu. It is also used to return to the previous menu from a submenu.

OK button displays the services list. See §5.2.1 for more details. It is also used to select a menu item.

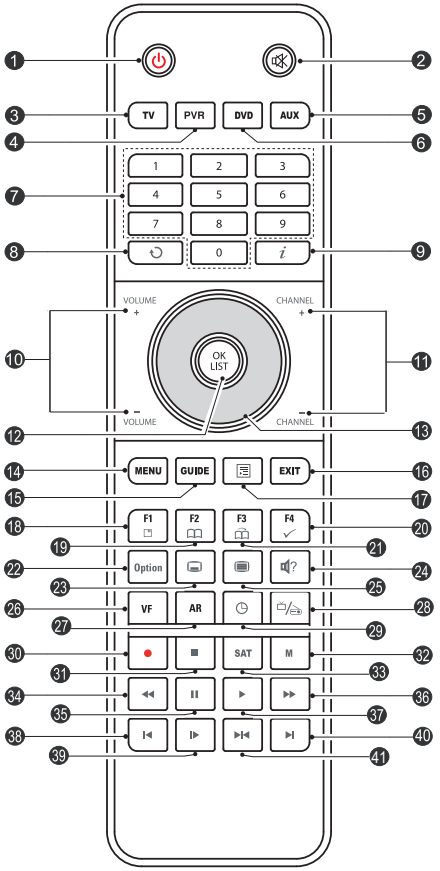
CHANNEL ▼, ▲ buttons switch to the previous or next service.

VOLUME ◀, ▶ buttons decrease or increase the volume.



There is a USB port on the front panel for firmware update and data transfer.

1.2.2 Remote control



1 ⏻ button switches the digital receiver between standby mode and active mode.

2 🔇 mutes the sound. Press again to switch it back on.

3 TV switches the remote control to television mode to operate your television.

4 PVR switches the remote control to receiver mode to operate the digital receiver.

5 AUX switches the remote control to operate your audio-video receiver.

6 DVD switches the remote control to DVD mode to operate your DVD player.

7 Numeric buttons are used to enter a service number for service change or to specify values for menu options.

8 ↺ switches over between the current service and the previously viewed one.

9 *i* displays the service information box. It is also used to display more information about a programme.

10 VOLUME−, VOLUME+ buttons decrease or increase the volume.

11 CHANNEL−, CHANNEL+ buttons switch to the previous or

next service.

12 OK displays the services list. See §5.2.1 for more details. It is also used to select a menu item.

13 Navigation buttons are used to navigate in menus or to change values for menu options.

14 MENU displays the main menu. It is also used to return to the previous menu from a submenu.

15 GUIDE displays the electronic programme guide.

16 EXIT is used to exit a menu or to hide on-screen information.

17 is used to display the list of recorded programmes that are stored in the internal hard drive. See §7.2 for more details.

18 F1 has different functions per menu.

19 F2 is used to make a bookmark on playback or time-shift.

20 F4 is used to edit a recording.

21 F3 is used to jump to next bookmark position.

22 Option has different functions per menu.

23 is used to select a subtitle track.

24 is used to select an audio track and a sound mode, or a video track of multifeed programme.

25 displays teletext.

26 VF changes video resolution. See §4.2.1 for more details.

27 AR changes aspect ratio. See §4.2.2 for more details.

28 switches over between television services and radio services.

29 is used to set a sleep timer in 10 minute increments.

30 is used to start recording.

31 is used to stop playback, to stop recording, or to jump back to live television from time-shifted television.

32 (M) switches the output of the TV SCART socket over between the digital receiver and the device connected to the VCR SCART socket. See §4.2.4 for more details.

33 (SAT) displays the satellites list with their services list.

34 ◂◂ is used to start reverse playback. Subsequent presses increase the rewind speed.

35 ⏸ pauses live television or playback of a recorded programme.

36 ▸▸ is used to start fast forward playback. Subsequent presses increase the playback speed.

37 ▸ resumes normal playback speed, or displays the progress bar for navigation on playback or time-shift. To play a recorded programme, see button **17**.

38 ⏮ is used to jump back to the beginning of the recording on playback.

39 ▸❙ is used to start slow motion playback. Subsequent presses change the playback speed.

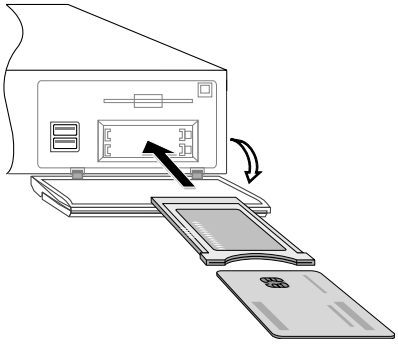
40 ⏭ is used to jump to the end of the recording on playback.

41 ▸⏮ has different functions per menu.

NOTE

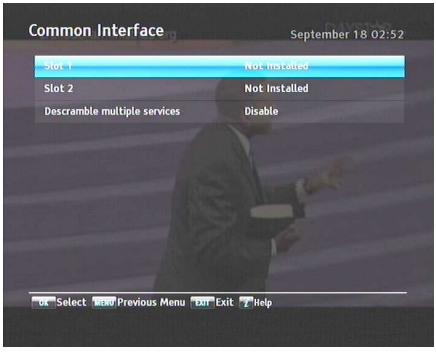
When using the remote control, point it at the remote sensor on the front panel of the digital receiver.

1.3 Common Interface



There are pay TV services available; these are accessible with the use of a Conditional Access Module (CAM) and a subscription card. A Common Interface (CI) is the slot into which you can insert a CAM. The front of the digital receiver has two common interface slots. To watch a pay service, you should take the following steps:

1. Purchase a CAM and a subscription card for the pay service you want to watch.
2. Insert the subscription card into the CAM.
3. Insert the CAM into a common interface on the front of the digital receiver.



To view the information about the module and subscription card which is inserted into the digital receiver, select the Information > Common Interface menu.

Chapter 2

Setup

2.1 Unpacking

Before going any further, check that you have received the following items with the digital receiver.

- Remote control
- Two batteries for the remote control (AAA 1.5 V)
- One HDMI cable
- A copy of this user guide

NOTE

Accessories may vary according to your local area.

2.2 Safety precautions

Please read carefully the following safety precautions.

- The mains voltage must range between 90 and 250 volts. Check it before plugging the digital receiver to the wall socket. For the power consumption of the digital receiver, refer to Table 2.1.

- The wall socket should be near the equipment. Do not run an extension lead to the unit.
- The mains plug shall remain readily operable so that it can be removed easily to disconnect the power.
- The digital receiver shall not be exposed to dripping or splashing water, and no objects filled with liquids, such as vases, shall be placed on it.
- Do not expose the digital receiver to any moisture. The digital receiver is designed for indoor use only. Use dry cloth to clean the digital receiver.
- Place the digital receiver on a firm and level surface.
- Do not place the digital receiver close to heat emitting units or in direct sunlight, as this will impair cooling. Do not lay any objects such as magazines on the digital receiver. When placed in a cabinet, make sure there is a minimum space of 10 centimetres around it. For the physical specification of the digital receiver, refer to Table 2.2.
- Protect the power cord from being walked on or pinched. If the cord is damaged, do not use the digital receiver and get the cord replaced.
- Never open the digital receiver casing under any circumstances, or the warranty will be void.
- Refer all servicing to a qualified service technician.

Table 2.1: Power specification

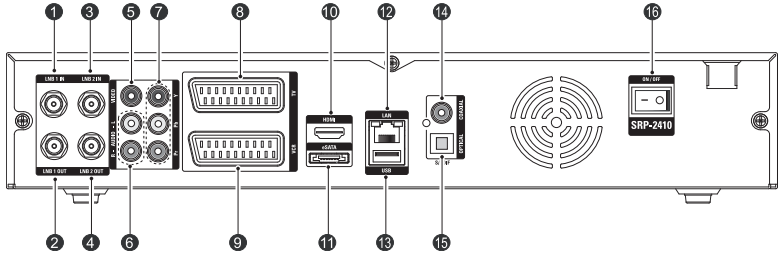
Input voltage	90 to 250 V AC, 50/60 Hz
Power consumption	60 W at maximum in active
	Under 1 W in passive standby

Table 2.2: Physical specifications

Size	380× 60× 265 mm
Weight	3.1 kg
Operating temperature	0 to 45 °C
Storage relative humidity	5 to 90 %

2.3 Rear panel connections

The SRP-2410 has a wide range of connections on the back.



Check what connections your television set has in comparison with the digital receiver.

1 LNB 1 IN Satellite broadcasting signal input socket for the first tuner
(Current: Max.500mA with overload protection)

2 LNB 1 OUT Satellite broadcasting signal output socket through the first tuner

3 LNB 2 IN Satellite broadcasting signal input socket for the second tuner

4 LNB 2 OUT Satellite broadcasting signal output socket through the second tuner

5 VIDEO Composite video output socket for the television set (yellow)

6 AUDIO L/R Stereo audio output socket for the television set or the audio-video receiver (white/red)

7 Y/Pb/Pr — Component video output socket for the television set (green/blue/red)

8 TV — Audio and video output socket for the television set

9 VCR — Audio and video input/output socket for another device such as a video recorder

10 HDMI — Audio and video output socket for the high definition television set

11 eSATA — eSATA port for connection to an external hard drive

12 LAN — Local area network port

13 USB — USB port for firmware update and data transfer

14 S/PDIF COAXIAL — Coaxial-type digital audio output socket for the audio-video receiver

15 S/PDIF OPTICAL — Optical-type digital audio output socket for the audio-video receiver

16 ON/OFF — Power switch (You have to turn on this switch first to use this digital receiver.)

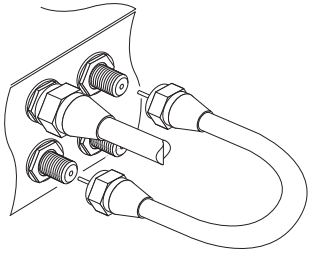
Table 2.3: Connectors specifications

HDMI	High definition video output
	Digital audio output
YPbPr	Component video output
TV	CVBS/S-Video/RGB video output
	Left & right audio output
VCR	CVBS video output
	Left & right audio output
	CVBS/S-Video/RGB video input for bypass
	Left & right audio input for bypass
VIDEO	Composite video (CVBS) output
AUDIO	Left & right audio output
S/PDIF	Digital audio output
LAN	10/100 Ethernet
USB	2.0 Host (5 V DC, 500 mA)
eSATA	External SATA 2.0

2.4 Connecting up your digital receiver

There are several ways to set up the digital receiver. Set up the digital receiver suitably to your television and other devices. If you have any problem with your setup or need help, contact your dealer.

2.4.1 Connecting to the antenna



Whatever sort of connection you have between the digital receiver and the television, you need to connect the digital receiver to the antenna so that it can receive digital television broadcasts. Connect the antenna cable to the LNB 1 IN connector on the back panel of the digital receiver. Also, you must ensure that there is a connection to both the LNB 1 IN and LNB 2 IN connectors on your digital receiver, so that both tuners work properly.

Normally you do that by using a loop cable to link from the LNB 1 OUT connector to the LNB 2 IN connector. If you have two antennas without DiSEqC switch, then you have to connect the cable from the other antenna directly to the LNB 2 IN connector rather than using the loop cable.

NOTE

The digital receiver can supply a current of 500 milliampere at maximum for antenna devices including LNB, DiSEqc switch and antenna rotor through each antenna input connection separately but not simultaneously. If there are too many antenna devices to be simultaneously supplied with sufficient power for a rather long time through the antenna input connections, then your antenna may lack power to operate. So it is recommended to link the LNB 1 OUT connector to the LNB 2 IN connector with a loop cable, even though the digital receiver is designed to operate independently over two antennas.

NOTE

Perhaps you are expecting that the satellite antenna could simultaneously catch all frequencies coming from a satellite

and send them to the digital receiver. However, the satellite antenna only sends the frequencies that it can catch with the LNB frequency and polarisation specified by the digital receiver. So if you have linked from the LNB 1 OUT connector to the LNB 2 IN connector, you would have some limitations in using some features such as dual recording. Likewise, if you have another digital receiver linked from the LNB 2 OUT connector, you can only use it limitedly. See §3.1 for more details.

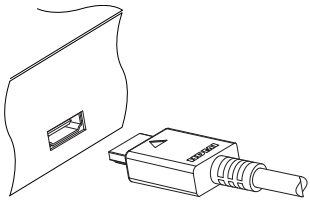
2.4.2 Connecting to your television set

For all the following connections of the digital receiver, we recommend you to use the first connector to get the best picture quality. If your television does not have a matching connector, then use the next connector in the following order for a better picture quality.

1. HDMI connector (HDMI)
2. Component connector (YPbPr)
3. SCART connector (TV)
4. Composite connector (VIDEO)

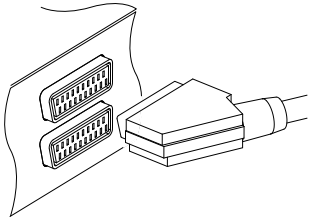
You should configure audio and video settings after connecting up the digital receiver. See §4.2 for a detailed description.

To use the HDMI output



If you have a high definition television set, you should use an HDMI cable for best results. Plug one end of the cable into the HDMI socket on the digital receiver, and plug the other end into the matching socket on your television. In this case, you do not have to make audio connection because it can output stereo audio or digital audio as well.

To use the SCART output



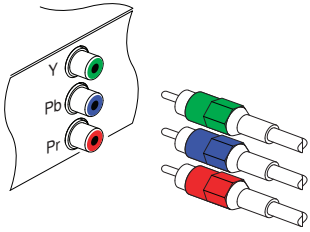
For best results with a standard television set, you should use a SCART cable. Plug one end of the cable into the TV socket on the digital receiver, and plug the other end into a free SCART socket on your television.

If you connect with a standard SCART cable, you do not have to make audio connection because it can output stereo audio as well. But if you use a conversion cable such as SCART-to-Component, then you have to make audio connection.

NOTE

You cannot view high definition video by means of the SCART output.

To use the Component video output

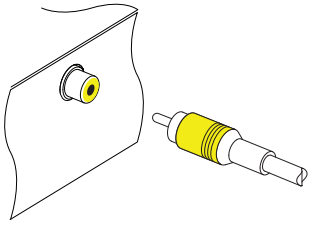


You need to obtain a Component video cable (RCA cable) to use the Component video output. Plug one ends of the cable into the Y (green), Pb (blue) and Pr (red) sockets on the digital receiver, and plug the other ends into the matching sockets on your television.

NOTE

When connecting with the Component video cable, remember to also plug in the additional white and red audio cables from the digital receiver to the back of your television.

To use the Composite video output

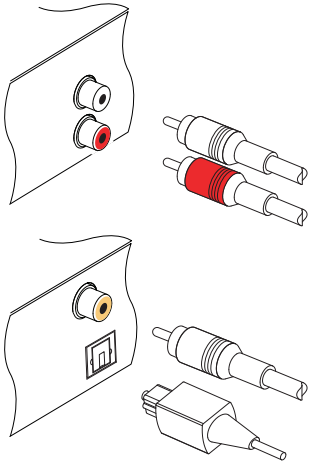


You need to obtain a Composite video cable (RCA cable) to use the Composite video output. Plug one end of the cable into the VIDEO (yellow) socket on the digital receiver, and plug the other end into the matching socket on your television.

NOTE

You cannot view high definition video by means of the Composite video output.

To make the audio connection



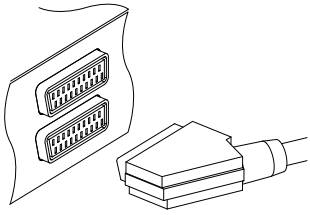
You need to obtain an audio cable (RCA cable) to link the audio connectors. Plug one ends of the cable into the AUDIO L (white) and AUDIO R (red) sockets on the digital receiver, and plug the other ends into the matching sockets on your television or audio-video receiver.

To enjoy Dolby Digital audio, your television or audio-video receiver must be able to decode Dolby Digital audio, and you need to obtain an S/PDIF cable.

If you want to use the COAXIAL connector, prepare a coaxial S/PDIF cable (RCA cable); otherwise to use the OPTICAL connector, prepare an optical S/PDIF cable. Plug one end of the cable into the S/PDIF socket on the digital receiver, and plug the other end into the matching socket on your audio-video receiver.

2.4.3 Connecting to your video recorder

The digital receiver can also output video through an auxiliary SCART connector to another device such as a video recorder.



You need to obtain a SCART cable to link the auxiliary SCART connector. Plug one end of the cable into the VCR socket on the digital receiver, and plug the other end into the matching socket on your video recorder or suchlike.

2.5 Switching on for the first time

Now that you have your digital receiver connected, you should plug it into a wall socket. Ensure that your television set is turned on and on the correct video channel so that you will be able to see the display from the digital receiver.

Before switching on the digital receiver, you should insert batteries into the remote control. Open the battery compartment by removing the lid, and then insert the batteries observing the polarity, which is marked on the base of the battery compartment.

Press the ⏻ button on the top left corner on the remote control. In a little time, you may see a picture displaying a menu.

If you do not see a picture, try pressing the VF button on the remote control. If after several tries you still get no picture, check that the television is set to the correct input. If the picture is good, you can skip to §3.1 to search for available television and radio services. Otherwise, you may need to temporarily connect the Composite video connector (VIDEO) to your television set so that you can see the menu in order to configure the video settings.

CAUTION

If the digital receiver no longer reacts properly to the remote control commands, the batteries may be flat. Be sure to replace only with 1.5 V AAA size batteries, and observe the following precautions.

- Do not mix different types of batteries, or new and old batteries.
- Do not use rechargeable batteries.
- Do not recharge the old batteries.
- In order to avoid any risk of explosion, observe the polarities indicated inside the battery compartment.
- Do not subject to excessive heat such as the sun and fire.
- If you are not using the remote control for a long period of time, remove the batteries. The manufacturer accepts no liability for the damage resulting from leaking batteries.
- Batteries, including those which contain no heavy metals, may not be disposed with other household wastes. Please dispose of used batteries in an environmentally sound manner. Find out the legal regulations which apply in your area.

Chapter 3

Service Search

After connecting up the digital receiver, you will need to perform a service search.

NOTE

If there is no service stored, you will be not able to access all menus. A SERVICE is another name for a CHANNEL.

3.1 Searching for broadcasting services

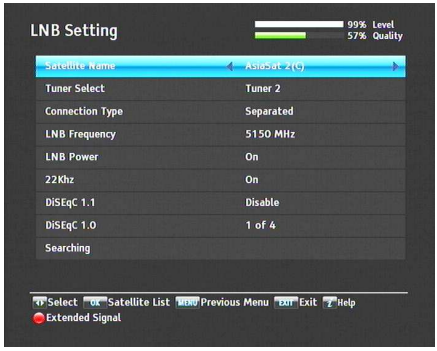
This digital receiver can be operated with both fixed antenna and motorized antenna. You have to configure antenna settings according to your antenna system in the following order:

1. Configure LNB settings. Refer to §3.1.1.
2. Set the position of your desired satellites if you have a motorized antenna. You can control the antenna in DiSEqC 1.2 mode or USALS mode. Refer to §3.1.2 for DiSEqC 1.2, and refer to §3.1.3 for USALS.
3. Perform a service search.

3.1.1 Configuring LNB settings

There are two large frequency bands for satellite broadcasts. One is C band which ranges approximately from 4 to 6 GHz. The other is K_u band which ranges approximately from 12 to 18 GHz.

The LNB (Low Noise Block converter) is used to take a wide band of relatively high frequencies, amplify and convert them to similar signals that is carried at a much lower frequency, which is called Intermediate Frequency (IF). High frequencies from satellites are converted into 950 to 2150 MHz by a LNB.



Select the Installation > LNB Setting menu to configure the LNB settings. You should see a screen like the left figure.

Pressing the OK button on the Satellite Name option displays the satellite list in alphabetic order. Select the satellite toward which your antenna is set to face. Even if you cannot find your desired satellite, you can add your desired satellite to the satellite list. See §3.3 for a detailed description.

You have to specify which tuner is connected to your selected satellite. If it is LNB 1 IN, set the Tuner Select option to Tuner

1; otherwise, set it to Tuner 2.

If you have connected the LNB 1 OUT and LNB 2 IN with a loop-through cable, then set the Connection Type option to Loop Through; otherwise, set it to Separated.

NOTE

Both the LNB 1 IN and LNB 2 IN sockets should be connected to your antennas either directly or via the loop-through cable. If you have connected only one socket, some features such as dual recording will not function.

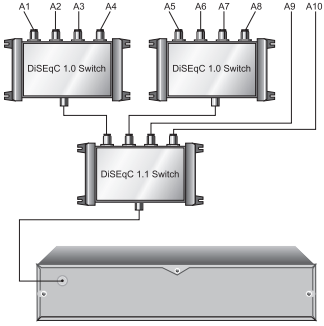
The digital receiver has a database of broadcasting satellites and their transponders, containing the following information: satellite position, frequency range, symbol rate, polarization and LNB frequency corresponding to the frequency range. So you might not have to specify the LNB Frequency option. However, if you have selected the Other entry at the Satellite Name option to specify a satellite that is not in the satellite list, you might have to fill in the correct LNB frequency. The absolute difference between a broadcasting frequency and its LNB frequency must be within 950 to 2150 MHz. For example, if the frequency band of your desired satellite ranges from 3660 to 4118 MHz, you have to set the LNB Frequency option to 5150 MHz.

The LNB has to be supplied with electric power to operate. Set the LNB Power option to On if it does not have any other power supply.

If you use a dual LNB or two antennas which is connected to the 22 kHz tone switch box, set the 22 kHz option to On.

The digital receiver is designed to be compatible with DiSEqC (Digital Satellite Equipment Control) switches. It is possible to connect several antennas to one digital receiver by DiSEqC switches. A DiSEqC 1.0 switch allows switching between up to four satellite sources and a DiSEqc 1.1 switch allows switching between up to 16 satellite sources.

Set the DiSEqC 1.0 option and the DiSEqC 1.1 option according to your antenna configuration.

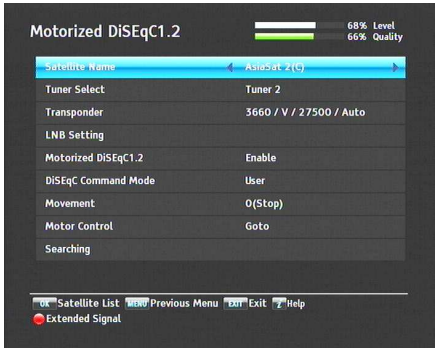


For example, to select the antenna connected to the A5 input in the left figure, set the DiSEqC 1.1 option to 2 of 4 and the DiSEqC 1.0 option to 1 of 4. If you have a mini DiSEqC 1.0 switch which has only two inputs, you should set the DiSEqC 1.0 option to Mini A instead of 1 of 4.

3.1.2 Configuring DiSEqC 1.2 settings

Your motorized antenna will turn toward your desired satellites horizontally by DiSEqC 1.2.

When you switch to a service, if it is not provided by the current satellite, it will take longer time than usual because the antenna has to turn to its position.



To use the DiSEqC 1.2 protocol, select the Installation > Motorized DiSEqC 1.2 menu. You should see a screen like the left figure. At first you have to set the Motorized DiSEqC 1.2 option to Enable.

To get the correct position of your desired satellite, take the

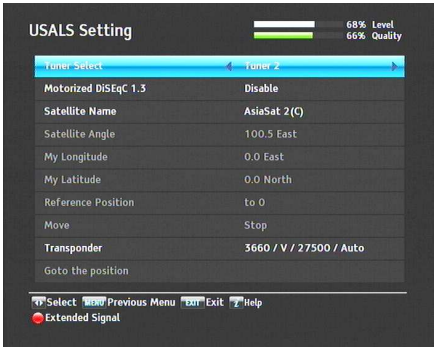
following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Select the tuner that is connected to the motorized antenna at the Tuner Select option.
3. Set the DiSEqC Command Mode option to User.
4. Set the Motor Control option to Goto. Then the antenna will turn toward your selected satellite by the position data that the digital receiver has.
5. If the receiving quality, which is displayed at the bottom right of the screen, is not good, tune the antenna finely with the Movement option. If you set it to 2(E), the antenna will move to the east by two degrees. At this time you had better check the receiving quality of every transponder and choose the best one at the Transponder (or Frequency) option. It will be helpful to your fine tuning.
6. Finally set the Motor Control option to Store to save the tuned position when the receiving quality is best.

There are more motor control options for installers, but this guide does not describe them. If you are an installer, refer them to the manual about the *STAB* rotor.

3.1.3 Configuring USALS settings

USALS (Universal Satellite Automatic Location System), also known as DiSEqC 1.3, calculates the positions of all available satellites from your location. Compared to DiSEqC 1.2, it is no longer required to manually search and store every satellite position. Just pointing to a known satellite position is enough. This position will act as a central point. The USALS will then calculate positions of visible satellites.

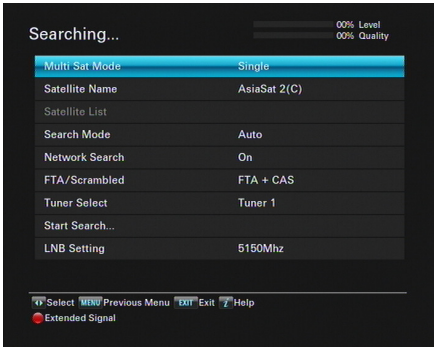


To use the USALS protocol, select the Installation > USALS Setting menu. You should see a screen like the left figure. At first you have to set the Motorized DiSEqC 1.3 option to Enable.

To get every satellite position calculated, take the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Select the tuner that is connected to the motorized antenna at the Tuner Select option.
3. Enter your location to the My Longitude option and the My Latitude option with the , and numeric buttons.
4. Enter the position of your selected satellite to the Satellite Angle option if it is not correct.
5. Select the Goto the position option, then the antenna will turn toward your selected satellite as calculating its position.
6. If the receiving quality, which is displayed at the bottom right of the screen, is not good, then tune the antenna finely with the Move option. The changed position is automatically saved. At this time you had better check the receiving quality of every transponder and choose the best one at the Transponder (or Frequency) option. It will be helpful to your fine tuning.

3.1.4 Searching for services



To perform a service search, select the Installation > Searching menu. You should see a screen like the left figure.

There are in general four service search methods:

- searching every service of a satellite,
- searching every service of a transponder,
- searching single service of a transponder,
- searching every service of a SMATV (Satellite Master Antenna Television) system.

Searching every service of a satellite

To search every service of a satellite, take the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Auto.
3. If you set the Network Search option to On, the digital receiver will check up the up-to-date channel information while searching services, but it takes a rather longer time.

With the Auto mode, the digital receiver tries to search every service, relying on the transponder data which is stored at the time of manufacture. It thus may happen to fail to search all actually available services since services are more often than not launched, discontinued, or removed into another transponder.

To avoid such missing, you had better set the Search Mode item to Blind. With the Blind mode, the digital receiver tries to search every service, scrutinizing every transponder with every possible combination of transponder elements. It thus may require many minutes or even many hours.

It is possible to search several satellites one after another for services. Set the Multi Sat Mode item to Multi, then the Satellite Name item becomes disabled and the Satellite List item becomes enabled. Pressing the OK button at the Satellite List item pops up the list of satellites. Select satellites you want to search and exit with the EXIT button.

Searching every service of a transponder

To search every service of a transponder, take the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Manual, and then press the OK button to diaply additional options.
3. Choose your desired transponder at the Frequency option or enter it with the numeric buttons.
4. Enter the symbol rate of your desired transponder to the Symbol Rate option with the numeric buttons.
5. Set the Polarization option to match to that of your desired transponder.
6. If you set the Network Search option to On, the digital receiver will check up the up-to-date channel information as searching services, but it takes rather longer time.
7. Set the Modulation option to match to that of your desired transponder. If the transponder is of the DVB-S2 standard, you should set this option to DVB-S2 QPSK or DVB-S2 8PSK. Then the FEC option and the Pilot option will become enabled. You also should set these options correctly.

NOTE

You may get transponder information from a satellite magazine or website such as http://www.satbeams.com or http://www.lyngsat.com.

Searching single service of a transponder

To search single service of a transponder, take the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Advanced, and then press the OK button to diaply additional options.
3. Choose your desired transponder at the Frequency option or enter it with the numeric buttons.
4. Enter the symbol rate of your desired transponder to the Symbol Rate option with the numeric buttons.
5. Set the Polarization option to match to that of your desired transponder.
6. Set the Modulation option to match to that of your desired transponder. If the transponder is of the DVB-S2 standard, you should set this option to DVB-S2 QPSK or DVB-S2 8PSK. Then the FEC option and the Pilot option will become enabled. You also should set these options correctly.
7. At the PID option, specify the audio and video packet identification (PID) of your desired service with the numeric buttons.

Searching every service of SMATV system

To search every service of a SMATV system, if the digital receiver is connected to it, take the following steps:

1. Choose your desired satellite at the Satellite Name option.

2. Set the Search Mode option to SMATV, and then press the OK button to diaply additional options.
3. Choose your desired transponder at the Frequency option or enter it with the numeric buttons.
4. Enter the symbol rate of your desired transponder to the Symbol Rate option with the numeric buttons.

You can search pay services as well as free services as follows:

- To search only free services, set the FTA/Scrambled option to FTA only.
- To search only pay services, set it to CAS only.
- To search both free services and pay services, set it to FTA + CAS.

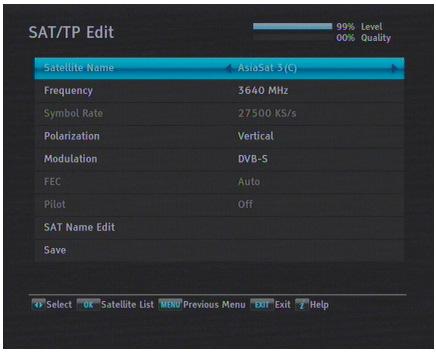
To start service search, move down to the Start Search item, and press the OK button. The digital receiver will start to search for services and display a list of television and radio services as they are found. It is common for no channels to be found until quite late in the process. When the scan is complete, you will see a message telling you how many services have been found. Press the OK button to save the list.

3.2 Copying services

The digital receiver maintains a separate services list with each tuner. If a certain service is registered on only one tuner, it may be impossible to watch one service while recording. You can copy entries of one tuner's services list to the other tuner's services list to avoid such inconvenience.

To copy service entries, select the Installation > Services Copy menu. There are three copy options. To copy service entries of the first tuner to the second tuner's services list, select the Tuner 1 to Tuner 2 option. To copy on the contrary, select the Tuner 2 to Tuner 1 option. To copy reciprocally, select the ALL option.

3.3 Editing the transponder list



If you failed to receive services of a transponder because it consists of wrong data, you can solve it by correcting the data. Select the Installation > SAT/TP Edit menu. To change the data of a transponder, take the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Choose your desired transponder at the Frequency option.
3. Change the Polarization option to match to that of your desired transponder.
4. Set the Modulation option to match to that of your desired transponder. If the transponder is of the DVB-S2 standard, you should set this option to DVB-S2 QPSK or DVB-S2 8PSK. Then the FEC option and the Pilot option will become enabled. You also should set these options correctly.
5. To change a satellite entry's name, select your desired entry at the Satellite Name option and select the SAT Name Edit option. Then the on-screen keyboard appears. Change the name and save it. See §6.3 as to how to use the on-screen keyboard.
6. Select the Save option and press the OK button to save the changes. To stop at any time or to exit without saving, press the EXIT button.

3.4 Resetting to factory settings

The digital receiver maintains the following data:

- Satellite list
- Services list
- Favourite list
- Timer list
- Preference settings

You can reset all data of the digital receiver. Select the Installation > System Recovery > Factory Setting menu, and then you get asked for confirmation. With the choice of Yes, the services list, favourite list and timer list will all be cleared, and preference options will be reset to the manufacturer's factory settings.

NOTE

A factory reset will not delete any recorded programmes. However, you have to search services again after a factory reset.

3.5 Resetting to user settings

You can store your own data including the following:

- Satellite list
- Services list
- Favourite lists
- Preference settings

Also you can restore them at any time.

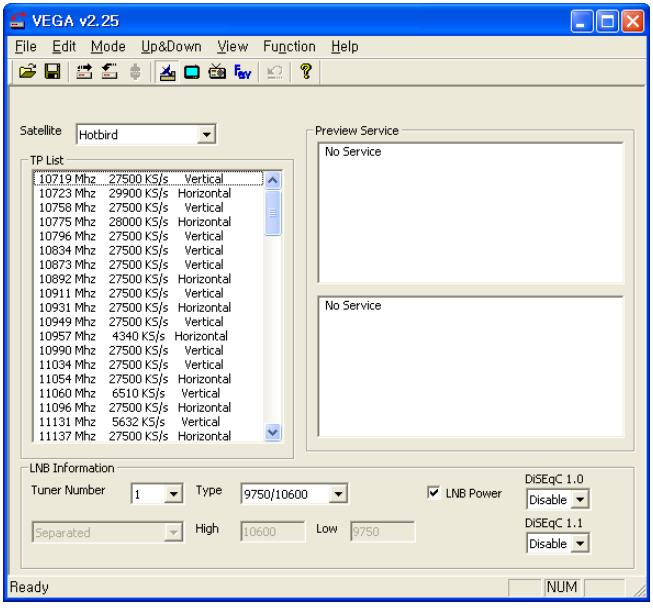
To store your data, select the Installation > System Recovery > Store System Data menu, then you get asked for confirmation. If you select Yes, your data will be stored. Whenever you store your data, they are all overwritten.

To restore your data, select the Installation > System Recovery > Recover System Data menu, then you get asked for confirmation. With the choice of Yes, your data will be restored.

You can also store your data to an external storage. To store your data to an external storage, select the Installation > System Recovery > Export System Data menu, then you get asked for confirmation. With the choice of Yes, your data will be stored. Every time you store your data, they are all overwritten.

To restore your data from an external storage, select the Installation > System Recovery > Import System Data menu, then system data will be listed. Select a data and press the OK button, then your data will be restored.

You can edit the channel data on your computer by using a channel editor software, *Vega*, which is available from Topfield's website, http://www.i-topfield.com/eng/download/utility_list.asp.



With Vega you can do the following:

- Adding, deleting or modifying satellite entries

- Adding, deleting or modifying transponder entries
- Deleting or modifying service entries
- Adding, deleting or modifying favourite groups

As to how to use Vega, refer to its user guide, which is accompanied by the software.

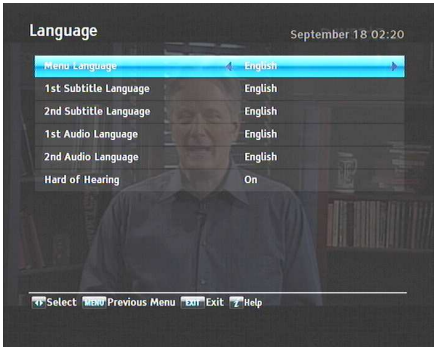
3.6 Clearing the services list

If you only want to clear the services list, select Installation > System Recovery > Reset Service List, then you get asked for confirmation. With the choice of Yes, the services list will be cleared. After this, you have to do service search again.

Chapter 4

Preference Settings

4.1 Language settings



You can select the language in which the menu will be displayed. In addition to that, you can select the language of audio track and of subtitle track. Select the Settings > Language menu. You should see a screen like the left figure.

4.1.1 Menu language

The digital receiver provides menus in several different languages. Set the Menu Language option to your desired language. Once you select a language, the menu will be immediately displayed in the selected language.

4.1.2 Subtitle language

Set the 1st Subtitle Language option and the 2nd Subtitle Language option to your desired languages. When you watch a programme, if the programme has a subtitle track of the language that is specified for the 1st Subtitle Language, it will be displayed. If the first language is not available but the second language is available, the subtitle of the second language will be displayed. If there is no available language, no subtitle will be displayed.

Apart from this setting, you can select a subtitle track with the [⊟] button. See §5.2.5 for a detailed description.

4.1.3 Hard of Hearing

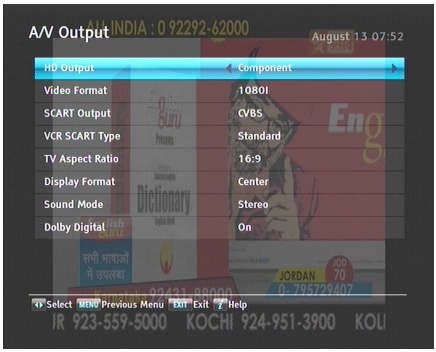
Some broadcasters may send a subtitle track dedicated to the hard-of-hearing. Even when a subtitle track or more is available, that subtitle track will be displayed prior to those you have specified for the 1st Subtitle Language and the 2nd Subtitle Language options if the Hard of Hearing option is set to On.

4.1.4 Audio language

Set the 1st Audio Language option and the 2nd Audio Language option to your desired languages. When you watch a programme, if the programme has an audio track of the language that is specified for the 1st Audio Language, it will be output. If the first language is not available but the second language is, the audio of the second language will be output.

Apart from this setting, you can select an audio track with the [🔊?] button. See §5.2.4 for a detailed description.

4.2 Video and audio settings



You have to configure the video and audio settings appropriately for your television set and other devices. Select the Settings > A/V Output menu. You should see a screen like the left figure.

4.2.1 High definition television

The digital receiver supports various video resolutions from 576 to 1080. In general, a resolution of 720 or more is considered high definition. The higher the resolution is, the better the quality is. However, if your television set does not support high definition, you cannot enjoy high definition quality picture.

If you have the digital receiver linked to your television via the Component video output (Y/Pb/Pr) or the HDMI output, you have to set the HD Output option to Component. Otherwise, you have to set it to SCART. The available values for the Video Format option vary depending on how you set this option.

Set the Video Format option as you desire. If you set this option to 576P, the digital receiver will present even high definition programmes in resolution of 576. On the contrary, if you set it to 1080I, the digital receiver will present even standard definition programmes in resolution of 1080.

It is recommended to set it to Auto if you have a high definition television. With that setting the digital receiver will present a programme as it is without any resolution conversion. While watching television you can change the resolution with the VF

button. Whenever you press it, the video resolution is changed in turn.

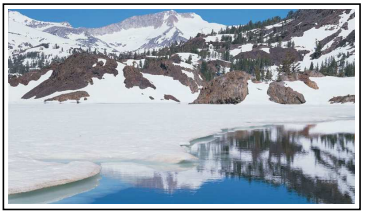
NOTE

You can enjoy only standard definition video with the following video outputs:

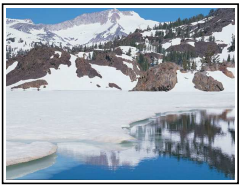
- Composite video output (VIDEO)
- SCART output (TV)

4.2.2 Television aspect ratio

If you have a wide-screen television, set the TV Aspect Ratio option to 16:9.



You can enjoy both wide-screen programmes and normal-screen programmes with your wide-screen television as the above figures show. To watch normal-screen programmes in full screen like the left figure, set the Display Format option to Full. Normal-screen pictures then will be inflated to fit to the width of the wide screen. Otherwise, to watch them in the original ratio like the right figure, set it to Center. If you have a normal-screen television, set the TV Aspect Ratio option to 4:3.



You cannot fully enjoy wide-screen programmes with your normal-screen television as the above figures show. The left figure shows a normal picture displayed in the normal screen. To watch wide-screen programmes in the shape like the centre figure, set the Display Format option to Letter Box. Wide-screen pictures then will be reduced to fit to the width of the normal screen. Otherwise, to watch them in the shape like the right figure, set it to Center extract. Then wide-screen pictures will be cut out on the left and right sides equally to fit to the width of the normal screen.

4.2.3 Colour format

Through the TV SCART output, the digital receiver is able to output video in various colour formats. If you have the digital receiver linked to your television via this output, you should set the SCART Output option to your desired colour format.

If you have connected via the RCA socket labeled VIDEO on the back panel, you do not have to set this option because the digital receiver outputs CVBS video through that RCA output independently of the SCART output.

In general, it is known that the RGB colour format provides the best video quality but the CVBS colour format does the least. So RGB would be the most desirable option for this.

4.2.4 Another video device

You can have the digital receiver linked to another video device like a video recorder or a DVD player via the VCR SCART output. In this case, the digital receiver will operate differently depending on the setting of the VCR SCART Type option. If the option is set to Standard, the digital receiver will pass along the video from the video device to your television when it starts playback. But if the option is set to External A/V, the digital receiver will not pass the video automatically. You have to press the [M] button to pass it along. It is impossible for the digital receiver to record the video from the video

device since the digital receiver is just a bypass for the video recorder.

4.2.5 Audio mode

Basically, there are two audio sources as you can find two audio sockets on the back panel of the digital receiver. You can enjoy only one source or both of them in either stereo or mono. Set the Sound Mode option as you desire.

Apart from this setting, you can change the sound mode with the [🔊?] button. See §5.2.4 for a detailed description.

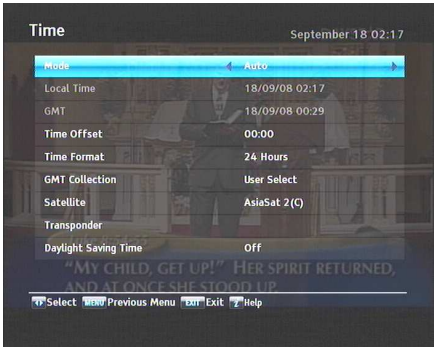
The digital receiver can output two types of digital audio signals via the S/PDIF output. One is an encoded signal, and the other is a decoded signal. If you have the digital receiver linked to your audio-video receiver via the S/PDIF output, you have to set the Dolby Digital option to Off, which means that the digital receiver will output encoded Dolby Digital audio without decoding so that your audio-video receiver can decode it. Otherwise, set it to On, then the digital receiver will output decoded Dolby Digital audio, scaling it down to two channels.

NOTE

Only if the service you are currently watching provides a Dolby Digital audio track, you can enjoy Dolby Digital sound.

4.3 Local time setting

You should set your local time for timer events. If you do not set the local time correctly, the programme time table provided by the programme guide may be distrustful. For the programme guide, refer to §5.3.



Select the Settings > Time menu. You should see a screen like the left figure. You can set the clock manually or use the time signal, Greenwich Mean Time (GMT), carried as part of the digital television broadcast. To use Greenwich Mean Time, take the following steps:

1. Set the Mode option to Auto, then the Time Offset option becomes enabled.
2. Set the Time Offset option to the time difference between your time zone and GMT referring to Table 4.1.
3. To get Greenwich mean time, set the GMT Collection option to one among the followings:

   Normal from all transponders
   CAS Only from transponders of pay services
   User Select from transponders specified by you

   If you set it to User Select, then the Satellite option and the Transponder option become enabled. Select your desired satellite and transponders at those options. With the above settings, the digital receiver will scan all specified transponders one by one until it gets the Greenwich Mean Time.
4. Make sure that your local time is correctly displayed on the Local Time item.

To set the local time manually, set the Mode option to Manual and enter your local time to the Local Time option with the numeric buttons. The time format is *day/month/year 24-hour:minute*.

If daylight saving time is observed in your state at the moment, set the Daylight Saving Time option to On.

NOTE

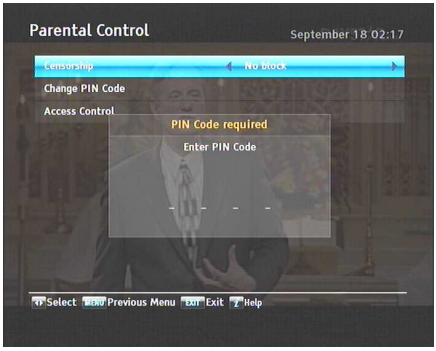
Daylight saving time adds one hour to the time when the option is set to On. When setting the time offset from Greenwich Mean Time, make sure that time offset does not include daylight saving time.

Table 4.1: Time offset table

Time offset	City
GMT − 12:00	Eniwetok, Kwajalein
GMT − 11:00	Midway Island, Samoa
GMT − 10:00	Hawaii
GMT − 09:00	Alaska
GMT − 08:00	Pacific Time US, Canada
GMT − 07:00	Mountain Time US, Canada
GMT − 06:00	Central Time US, Canada, Mexico City
GMT − 05:00	Eastern Time US, Canada, Bogota, Lima
GMT − 04:00	Atlantic Time Canada, La Paz
GMT − 03:30	Newfoundland
GMT − 03:00	Brazil, Georgetown, Buenos Aries
GMT − 02:00	Mid-Atlantic
GMT − 01:00	Azores, Cape Verde Islands
GMT	London, Lisbon, Casablanca
GMT + 1:00	Paris, Brussels, Copenhagen, Madrid
GMT + 2:00	South Africa, Kaliningrad
GMT + 3:00	Baghdad, Riyadh, Moscow, St. Petersburg
GMT + 3:30	Tehran
GMT + 4:00	Abu Dhabi, Muscat, Baku, Tbilisi
GMT + 4:30	Kabul
GMT + 5:00	Ekaterinburg, Islamabad, Karachi, Tashkent
GMT + 5:30	Bombay, Calcutta, Madras, New Delhi
GMT + 6:00	Almaty, Dhaka, Colombo
GMT + 7:00	Bangkok, Hanoi, Jakarta
GMT + 8:00	Beijing, Perth, Singapore, Hong Kong
GMT + 9:00	Tokyo, Seoul, Osaka, Sapporo, Yakutsk
GMT + 9:30	Adelaide, Darwin
GMT + 10:00	Eastern Australia, Guam, Vladivostok
GMT + 11:00	Magadan, Solomon Islands, New Caledonia
GMT + 12:00	Fiji, Auckland, Wellington, Kamchatka

4.4 Parental control

In general, television programmes are classified according to the level of violence, nudity and language of their content. When you are watching a programme, you can check its programme classification on the information box. For the information box, see §5.2.3. You can prevent your children from watching specific programmes by specifying a maximum permissible level.



Select the Settings > Parental Control menu. You should see a screen like the left figure, and you will be asked your Personal Identification Number (PIN). The number is initially set to '0000' as default.

If you wish to block programmes for viewers aged 15 or above, set the Censorship option to 15 (age). Setting it to No block blocks no programme; on the other hand, setting it to Total block blocks every programme.

NOTE

If a programme has no rating information, your censorship setting will not take effect.

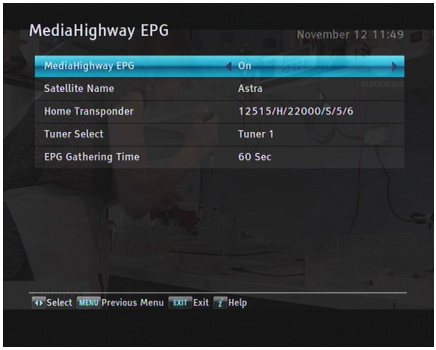
If anyone is trying to watch a programme that is of or above the censorship setting, the person has to enter the personal identification number to override. To change the number, select the Change PIN Code menu, then a box pops up, asking a new PIN. Enter a desired number twice for confirmation.

You can also restrict uses of some menus. Selecting the Access Control menu displays a list of menus that you can lock. If the

Time item is set to Locked, you have to enter the PIN when accessing the Time menu. If you enter a wrong number, you cannot use the menu. To release a locked item, set it to Unlocked.

4.5 To use MediaHighway programme guide

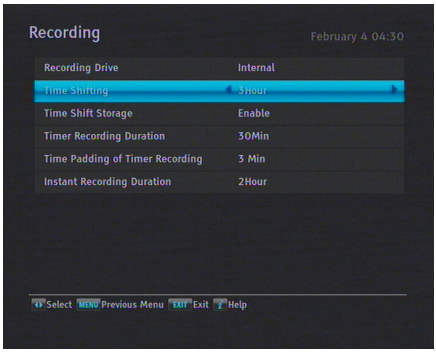
Almost every service provider would provide the electronic programme guide. However, you can get more abundant programme information from a specific transponder that provides only programme guides. For detailed description about electronic programme guide, see §5.3. MediaHighway stands for the transponder dedicated to the electronic programme guide.



If you want to use this feature, select the Settings > MediaHighway EPG menu. You should see a screen like the left figure.

Set the MediaHighway EPG option to On to activate this feature, then the other options become enabled. Set the Satellite Name and Home Transponder options to available ones, and set the Tuner Select option to the tuner through which to receive the specified transponder. The digital receiver will try to receive programme guide within the duration specified at the EPG Gathering Time option.

4.6 Options for recording



To set the options for recording, select the Settings > Recording menu. You should see a screen like the left figure.

To enable the time-shift function, you should set the Time Shifting option to anything other than Disable. The available range for this option is 30 minutes to 5 hours. You will have the latest of the current programme as long as the duration specified at this option.

You can record a programme into both an external and the built-in hard drive. If you want to record a programme into an external hard drive, set Recording Drive option to External; otherwise, set this option to Internal.

If you set the Time Shift Storage option to Enable, the time-shifted programme will be saved in the TimeShift folder of the hard drive.

You can set the duration of the timer recording. Set the Timer Recording Duration option as you desire. Its available range is 10 minutes to 3 hours.

Time padding is the feature of adding extra recording time to the beginning or end of a programme, so that you do not miss any part of the programme. Set the Time Padding of Timer Recording option as you desire.

You can adjust the duration of the instant recording. Set the Instant Recording Duration option as you desire. Its available range is 30 minutes to 5 hours.

4.7 Options for playback

To set the options for playback, select the Settings > Playback menu. You should see a screen like the left figure.

If you want to play back a recorded file from beginning, set Starting Position option to Beginning. To play back a recorded file from the part where you were watching, set this option to Continuing.

To make a descrambled copy from a scrambled recording, set the Descramble Mode option to Auto Recording; otherwise, set this option to Normal.

You can adjust the jump interval that is for playback. Set the Jump Time Interval option as you desire. Its available range is 10 seconds to 3 minutes.

If you want to enjoy more levels of playback speed, set the Trick Mode Level option to 2x, 4x, 8x, 16x, 32x, 64x; otherwise, set it to 4x, 16x, 64x.

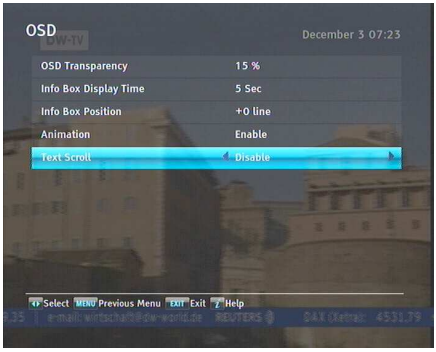
NOTE

You can enjoy video files such as DivX with the digital receiver. However, the above options might not be effective depending on the video files to be played. For detailed description on how to play back a video file, refer to §8.3.

If you have subtitle files such as .smi, .sub, .idx, and .srt, the digital receiver can also display them. The Media Subtitle item provides some options for video subtitle. When you play back

a video file with a subtitle file, if the subtitle does not match the video, then you can synchronise them by adjusting the value of the Sync option. In addition, you can change the colour and size of subtitle by setting the Font Color and Font Size options to one you prefer.

4.8 Options for on-screen display



To set the options for the on-screen display (OSD), select the Settings > OSD menu. You should see a screen like the left figure.

To adjust the transparency level of the OSD, set the OSD Transparency option as you desire. Its available range is 0 to 50 percent.

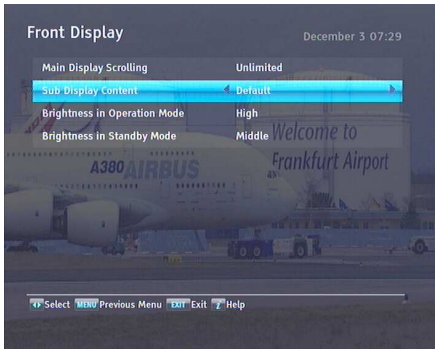
To adjust the display time of the information box, set the Info Box Display Time option as you desire. Its available range is 1 to 30 seconds. If you set this option to No Info Box, the information box will not be displayed when you switch services. However, pressing the [i] button will display the information box. If you set this option to Never Hide, the information box will always be displayed. For the information box, see §5.2.3.

In addition, you can raise or lower the position of the information box. Set the Info Box Position option as you desire. Its available range is -10 to $+3$ lines. The higher you set the option, the lower the information box will be positioned.

To use an animation effect when changing menu, set the Animation option to Enable.

If any service's name is too long to fit the width of the service name column on the services list screen, you can get it to scroll by setting the Text Scroll option to anything other than Disable. With the choice of Full Scroll, it will be fully scrolled until its end disappears; with the choice of Part Scroll, it will be scrolled only to its end.

4.9 Options for the front display



To set the options for the front display, select the Settings > Front Display menu. You should see a screen like the left figure.

The front display shows the currently viewed service's number and name. If any service's name is too long to fit the width of the service name column, you can get it to scroll by setting the Main Display Scrolling option to anything other than Disable. With the choice of Unlimited, it will be repeatedly scrolled; with the choice of Once, it will be scrolled only once. If you want to have the current time displayed instead of the service number, set the Sub Display Content option to Time.

You can also adjust the brightness of the front display in active mode and standby mode by setting the Brightness in Operation Mode option and the Brightness in Standby Mode option to any as you like.

4.10 Options for standby mode

You can have the current time displayed on the front display in standby mode. Select the Settings > Miscellaneous menu and set the Standby Mode option to Active; otherwise, set it to Passive. When you set the Standby Mode option to Active, the receiver can also bypass the signal from the antenna. To save power consumption, you might as well set the Automatic Power Down option to Enable. With this option enabled, the receiver will be turned off automatically when there is no manipulation over three hours.

Chapter 5

Every Day Use

5.1 Volume control

Use the VOLUME− and VOLUME+ buttons to alter the volume to a comfortable level. You may need to adjust the volume on your television set too. To temporarily switch off the sound, press the button. Press it again to restore the sound to previous level.

5.2 Watching television

To change services, press the CHANNEL− or CHANNEL+ button. Pressing the button switches to the previously viewed service. In addition, you can switch to your desired service by entering its service number with the numeric buttons. You can also select a service to watch in the services list.

5.2.1 The services list

To view the services list, press the OK button.

On the services list, you can see the service information as follows:

- Service number and name
- Transmitting satellite
- Receiving tuner: T1 stands for the first tuner; T2 stands for the second tuner.
- Multiplex information

A dollar sign (**$**) may be marked on some entries, indicating pay service. To watch pay services, you need a subscription card.

To select a desired service, put the highlight bar on its entry with the ◯ or ◯ button and press the OK button, then the selected service will be presented.

Pressing the ◯ or ◯ button skips over 10 entries up or down. Entering a service number with the numeric buttons puts the highlight bar on its entry.

You can switch between the television services list and the radio services list by pressing the ▭/▭ button.

To sort the services list by service name, press the F2 button. Pressing this button once more makes it sorted by service number.

Pressing the Option button displays additional options, with which you can do the following:

- Select your desired satellite at the Satellite option, then only services provided by the selected satellite will be listed.
- Select your desired tuner at the Tuner option, then only services provided through the selected tuner will be listed.

- By setting the Show Provider option to On, you can view service entries by groups of broadcasters.
- To change the name of the highlighted service, select the Rename option, then appears the on-screen keyboard with which you can enter a new name. See §6.3 as to how to use the on-screen keyboard.
- You can prevent other family members from watching the highlighted service by setting the Lock option to Locked. You have to enter your personal identification number to watch or unlock it.
- To delete the highlighted service, select the Delete option, then you get asked for confirmation. With the choice of Yes, the service will be deleted. If you want to restore it as before, you have to perform service search again. See §3.1 for service search.
- To add the highlighted service into a favourite group, select the Add to Fav option, then the favourite groups will be displayed. Put the highlight bar on a desired group and press the OK button.
- You can additionally sort the services list with the Sorting option as follows:

  Default by service number
  Alphabetic by service name
  Satellite by satellite
  FTA–CAS from free services to pay services
  CAS–FTA from pay services to free services
  Provider by broadcaster
  Fav–NoFav from favourite services to unfavourite services.
  Transponder by transponder

5.2.2 The favourite service lists

You can select a service on a favourite list as well as on the services list.

To display the favourite lists, press the F2 button at the services list screen. For the services list, see §5.2.1.

To select a favourite list, put the highlight bar on a desired favourite group list and press the OK button, then the selected favourite group's services will be listed.

As to how to edit the favourite lists, refer to §6.2.

To select a favourite service, put the hightlight bar on a desired service and press the OK button, the it will be displayed. To select another group, press the ↺ button.

After you have selected a favourite service, if you then switch to another service using the ◯ or ◯ button, it will be also another favourite service of the selected group. The digital receiver will remind you what group you have selected by displaying its name at the top right of the screen whenever you switch services.

To return to the services list, press the F1 button. Besides that, you can add or delete a favourite group or service.

To add the service you are currently watching into a favourite group, press the Option button to display additional options, and then select Add this service item.

To remove the currently highlighted favourite grop or service, select Delete item in the additional option box, then you get asked for confirmation; with the choice of Yes, it will be removed.

5.2.3 Viewing programme information

Pressing the *i* button displays the information box, on which you can see all of the following:

- Service number and name
- Transmitting satellite
- Receiving tuner
- Transponder information
- Signal level and quality
- Programme name
- Programme classification sign
- Programme summary
- Broadcasting time
- Current time

In addition, you might see the following symbols:

- Subtitle symbol (▭) if subtitle tracks are provided on the current programme.
- Teletext symbol (▤) if teletext pages are provided on the current service.
- Dolby Digital symbol (◧◧ D) if a Dolby Digital audio track is provided on the current programme.
- Lock symbol (🔑) if the current service is locked.
- Dollar symbol (**$**) if the current service is a pay service.
- Multifeed symbol (▣) if the current programme is provided as a multifeed programme. To use this feature, refer to §5.4.

If the electronic programme guide is provided on the current service, you can see the information about the current and next programmes with the ◎ or ◎ button. You can also see the information about other services with the ◎ or ◎. In this case, you can change a service by pressing the OK button.

Pressing the *i* button once more displays detailed information about the current programme. To hide the information box, press the EXIT button.

5.2.4 Selecting audio tracks

Some programmes are provided with audio tracks in one or more languages. Pressing the [🔊?] button displays available audio tracks. Once you select an audio track, that track will be heard. In addition, you can enjoy audio tracks in four sound modes: Stereo, Mono, Left or Right. However, if a multifeed programme is provided at the moment, video tracks will be displayed. In this case, you have to press the [🔊?] button once more to select an audio track.

5.2.5 Selecting subtitle tracks

Some programmes are provided with subtitle tracks in one or more languages. If the current programme provides subtitle tracks, the subtitle symbol ([—]) will be marked on the information box. Pressing the [💬] button displays available subtitle tracks. Once you select a subtitle track, it will be displayed.

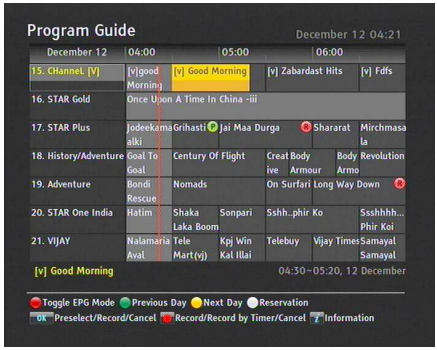
5.2.6 Viewing teletext

On some services, such information as weather reports, news or stock quotations is provided by means of teletext. If the current service provides teletext, the teletext symbol ([≡]) will be displayed on the information box. Press the [📺] button to view teletext pages.

Select a page to view by entering its page number with the numeric buttons. You can zoom into a teletext page with the [F3] button, and adjust its transparency level with the [F4] button. To clear the teletext screen, press the [EXIT] button.

5.3 Viewing electronic programme guide

The Electronic Programme Guide (EPG) shows the current and scheduled programmes that are or will be available on each service with a short summary for each programme.



Pressing the GUIDE button displays the electronic programme guide, on which you can see the following:

- Scheduled programmes
- programme summary
- Broadcasting date
- Broadcasting time

To see detailed information of a desired programme, put the highlight bar on the programme with the ◎ or ◎ button and press the *i* button. To switch to another service, press the ◎ or ◎ button.

You can travel over previous days with the F2 button, and can travel over next days with the F3 button.

To see the programme guide for radio broadcasts, press the ▭/▭ button. To switch it back, press the ▭/▭ button again.

Pressing the F1 button will rearrange the form, swapping the columns and rows. To switch it back, press the F1 button again.

You can make a timer recording on the electronic programme guide. See §7.1.3 for detailed description.

5.4 Watching multifeed programme

Some broadcasts such as sports channels can provide a variety of perspectives on a programme at the same time. We call it a multifeed programme. You can select and watch a perspective you prefer.

If a multifeed programme is provided on the current service, the multifeed symbol (▣) will be marked on the information box. Press the 🔊? button, then available video tracks will be listed. Once you select one, it will be presented. At this time,

you have to press the [?] button once more to select audio tracks.

5.5 Using time-shift

You can pause and resume a live television programme, and even rewind and replay it. When you are watching a programme and you miss something, you can rewind and replay it. Or when your attention is needed elsewhere, you can pause a live TV and resume a short time later without losing any of the programme.

When you do this, you are no longer watching the live programme, instead you are watching a delayed presentation. This is called time-shifted television. You can skip commercials until you catch up to the live broadcast.

In order to use the time-shift feature, set the Time Shifting option to desired duration of time. Then the digital receiver will archive the programme as much time as you set in the option. See §4.6.

The time-shift will be reset each time you change to another service. With the time-shift, the following operations are possible:

- To go back in time, hold down the [◂◂] button; to go forward, hold down the [▸▸] button. The progress bar is displayed momentarily with a preview window.
- You can navigate using the progress bar, refer to §7.3.1.

- You can jump backward and forward by pressing the F4 and F3 buttons. You can change the jump time at the Jump Time Interval option. See §4.7.
- You can change playback speed. See §7.3.2 for slow motion. For fast motion, see §7.3.3.
- To check your current position in time-shift, press the *i* button. The time difference compared to live programme is displayed momentarily in top right corner of the screen. A value of −02:00 means two minutes behind the live programme.
- To make a recording of the time-shifted programme,, see §7.1.4.
- To end time-shift, press the ■ button. The live programme will be displayed.

NOTE

You can adjust some options for time-shift. Refer to §4.6.

Chapter 6

Organising Services

6.1 Editing the services list

You would have got the services list after service search. You can rename, move, lock or delete service entries on the services list.

Select the installation > Edit Services > Edit Service List menu. You should see a screen like the left figure. There are editing options on the left column and service entries on the right column.

Once you put the highlight bar on a desired option on the left column and press the OK button, you can select a desired service to edit on the right column. To go over to the other column, press the F1 button.

To edit the radio services list, press the button, then radio

service entries will be listed on the right column. To switch back to the television services list, press it again.

To change the name of a service, select the Rename and select a desired service; then the on-screen keyboard appears. See §6.3 as to how to use the on-screen keyboard.

Unlike analogue broadcasts, each service does not have a proper service number in digital broadcasts. Service numbers are just assigned to services in the order that they were found in service search. So you can reassign a service number by moving a service entry. To move a service entry, select the Move option and select a desired service; then the selected service becomes darker. As you move it up or down, it gets renumbered according to the position. Press the OK button to fix it.

You can lock some services to prevent your children from watching them. To lock a service, select the Lock option and select a desired service; then the selected service gets marked with a lock symbol (🔑) on it. If anyone tries to watch a locked service, the person has to enter the personal identification number that is set to the Change PIN Code option. See §4.4 for this option. Pressing the OK button on a locked service entry turns it back to be unlocked.

To delete a service, select the Delete option and select a desired service with the OK button, and then press the EXIT button; you get asked for confirmation. If you select Yes, the selected service will be deleted. If you want to undo the deleted service, there is nothing you can do but perform a service search again.

Once you select the Sort option on the left column, sorting options are displayed as follows:

Default by service number
Alphabetic by service name
Satellite by satellite
FTA–CAS from free services to pay services
CAS–FTA from pay services to free services

Fav–NoFav from favourite services to unfavourite services
Provider by broadcaster
Transponder by transponder

6.2 Editing the favourite lists

You can make your own favourite service lists. In fact, you can define multiple favourite service lists, each being a 'group' of chosen services.

Select the installation > Edit Services > Edit Favorite List menu. You should see a screen like the left figure. There are three columns:

- Group list (left)
- Favourites list (centre)
- Services list (right)

The services list contains all available services, whereas the favourites list contains only chosen services that have been added to the highlighted group. As you move the highlight bar up or down on the group list, favourite services belonging to the highlighted group get shown in the favourites list.

You can add up to 30 groups. To add a new group, select the NEW item in the group list, then the on-screen keyboard appears. See §6.3 as to how to use the on-screen keyboard.

To rename a group, put the highlight bar on the group entry you want and press the F2 button, then the on-screen keyboard likewise appears.

To delete a group, put the highlight bar on the group entry you want and press the F3 button, then a message box appears, asking you for confirmation. With the choice of Yes, it will be deleted.

You can add a favourite service to a group by taking the following steps:

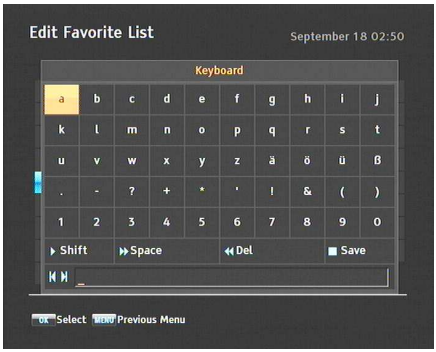
1. Put the highlight bar on a desired group entry in the group list and press the OK button to select it. The highlight bar then moves to the services list.
2. To add a service to the selected group, put the highlight bar on a desired service entry and press the OK button. The selected service entry gets added to the favourite list. Repeat this step to add more entries.
3. Press the F1 button, and the highlight bar gets moved to the favourite list. You can delete a favourite entry with the OK button.
4. To select another group, press the F1 button again, then the highlight bar gets moved to each column.

Furthermore, you can rearrange a group's favourites by moving a favourite entry. To move a favourite entry, put the highlight bar on the favourite entry you want and press the F2 button. Move it to a desired place and press the OK button.

To add radio services, press the button, then radio service entries get listed in the services list. To recall the television services list after adding radio services, press the button again.

As to how to use the favourite service lists you organised, refer to §5.2.2.

6.3 How to use on-screen keyboard


Edit Favorite List
September 18 02:50
Keyboard
a b c d e f g h i j
k l m n o p q r s t
u v w x y z ä ö ü ß
. - ? + * ' ! & ( )
1 2 3 4 5 6 7 8 9 0
Shift
Space
Del
Save
OK Select MENU Previous Menu

You can move the highlight key horizontally with the and buttons and vertically with the and buttons. Pressing the OK button on a key enters its letter in the input line.

To type a space, select the Space key or alternatively press the ▶▶ button. To type lower case letters or numerals, select the Shift key or alternatively press the ▶ button. To delete a letter, put the cursor to the right of the desired letter on the input line and then select the Del key or alternatively press ◀◀ button. You must select the Save key or alternatively press the ■ button to complete your typing; otherwise if you press the EXIT button, it will not be saved.

Chapter 7

Recording and Playback

You can record TV programmes into an external hard drive as well as the built-in hard drive.

NOTE

To use an external hard drive, you must connect the external hard drive to the USB port or the eSATA port of the digital receiver. You cannot play back the recordings with a regular MPEG player on your computer because they are formatted differently from the standard MPEG format. Visit http://www.kmplayer.com where you can find an MPEG player able to play them back.

CAUTION

Do not disconnect the external hard drive while recording or playing back. It may cause damage to recorded programmes. You should disconnect the external hard drive in standby mode only.

You can record a service while watching another one with this digital receiver. You can record two different services while

watching another one only if two among the services are provided through the same transponder. The digital receiver has two tuners so that you can enjoy the following:

- You can record two different services while playing back a previously recorded programme.
- You can record two different services while watching one of them using the time-shift feature. See §5.5 for the time-shift feature.

7.1 Recording a programme

Once a recording gets started, a symbol like the left figure will be displayed at the top right of the screen for a few seconds.

When you are watching a different service from the service being recorded, you will see a number on the centre of the symbol, this indicates the order that the recording has started. To record two programmes simultaneously, two tuners are allocated for the recording. Therefore, you can only change to a limited number of services while the two programmes are being recorded.

CAUTION

Do not move the digital receiver nor pull out the power plug while it is running. It may cause damage to recorded programmes. Topfield is not responsible for damages inflicted on files that are stored on the hard drive.

7.1.1 Instant recording

To instantly record a programme you are watching at present, press the [●] button.

Pressing the [II] button will not pause the current recording like it does with a video recorder. Instead, pressing the [II] button will pause the live show and begin time-shifting within the

current recording even with the Time Shifting option disabled. In short, it is still possible to pause a recording, but literally recording continues in the digital receiver.

After a recording has started, pressing the ● button displays a menu like the left figure, in which you can set the recording duration.

To specify an arbitrary recording duration, set the Duration option as you desire with the ◎ and ◎ buttons and press the OK button; the recording will end at the specified time.

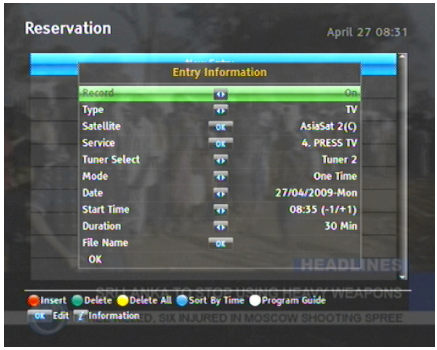
If the information about the next programme is provided by the electronic programme guide, the After this program and After next program options will be enabled. Once the After this program option is selected, the current recording will stop at the time when the current programme is scheduled to end. Likewise, once the After next program option is selected, the current recording will stop at the time when the next programme is scheduled to end.

To stop recording, press the ■ button; then a box like the left figure appears, which shows the programmes currently being recorded. Select recording by using navigation buttons then press OK button to stop the recording.

While a recording is going on, you can watch or record another service. To additionally record another service, switch to the service you want to record, and press the ● button. Once a recording is started, it is put on the recorded programme list even though it is not finished yet. The recording file is named the program name if available or after its service name with a suffix of a number. To view the recorded programme list, press the ▤ button or alternatively select the Recording > Recorded Program menu. See §7.2 for detailed description about the recorded programme list.

7.1.2 Timer recording

You can set a programme to be recorded at a specific time. Even if the digital receiver is in standby mode, it will switch into active mode and start recording at a specified time. When the recording comes to the end, the digital receiver will switch back into standby mode again in one minute. However, if you press any button on the remote control or on the front panel even just one time, the digital receiver will not switch into standby mode.



To add a timer recording, select the Recording > Reservation menu, then the timer list will be displayed. To add a new timer event, press the F1 button, and a box like the left figure appears. Take the following steps:

1. Set the Record option to On to make a recording. If this option is set to Off, the digital receiver will turn on at the specified time but not record; instead, you may record with your video recorder or suchlike in this case.
2. You may have two sources for recording, TV and radio. Set the Type option to your desired source.
3. Set the Satellite option to the satellite which transmits the service you want. Pressing the OK button on this option displays a satellite list, from which you can select your desired satellite. Set the Tuner Select option to a tuner to receive your desired service.
4. Set the Service option to the service which provides the programme you want. Pressing the OK button on this option displays a services list, from which you can select your desired service.
5. Set the Mode option as you desire. There are five timer modes:

   One Time means literally 'one time'.
   Every Day means literally 'every day'.
   Every Weekend means 'Saturday and Sunday every week'.
   Weekly means 'one day every week'.
   Every Weekday means 'from Monday to Friday every week'.

If your favourite programme is broadcast at weekends and you wish to record every episode of the programme, set the Mode option to Every Weekend.

6. Set the Date option to a desired date, on which the digital receiver will turn on. The date format is *day/month/year-day of the week*.

   Set the Start Time option to a desired time, at which the recording will be started. The time format is *hour:minute*.

7. Set the Duration option to a desired time, in which the recording will be finished.

8. Pressing the OK button on the File Name option displays the on-screen keyboard, with which you can specify a file name for the timer recording. If you do not specify anything, it will be named after the service name. See §6.3 as to how to use the on-screen keyboard.

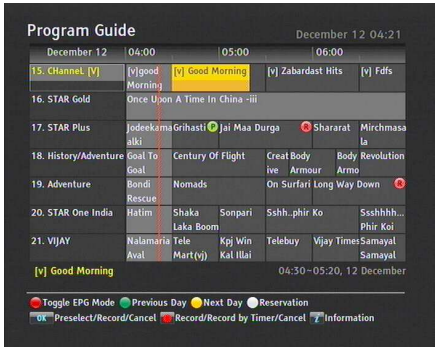
9. To set a recording reservation with the above settings, select the OK item; otherwise, it will not be saved and will not occur.

You can also edit or delete timer events in the timer list. To edit a timer entry, put the highlight bar on the entry you want and press OK button; then appears a box in which you can change its settings in the same manner as making a new one.

To delete a timer event, put the highlight bar on the entry you want to remove and press the F2 button, then you get asked for confirmation. With the choice of Yes, it will be deleted. To delete all timer event, press the F3 button.

You can sort timer events by time with the F4 button.

7.1.3 Scheduling recordings using the programme guide



If the electronic programme guide is properly provided, you can make timer events on it. The instructions on how to make timer recordings using the electronic programme guide are as follows:

1. Press the GUIDE button to display the electronic programme guide.
2. Select a programme you want to record with the navigation buttons.
3. To make a timer event without recording, press the OK button; the letter **P** is displayed. To make a timer event with recording, press it once more or alternatively press the ● button, then the letter **R** is displayed.
4. Pressing the OK button once more will cancel the timer.

7.1.4 Recording a time-shifted programme

While watching a programme with time-shift, you can record it by performing the following steps:

1. Press the ▶ button to display the progress bar.
2. To move to the beginning of the desired scene, hold down the ◀◀ or ▶▶ button until it is reached.
3. Press the ● button to start recording. The time-shift buffer from that position onwards will now be recorded.
4. Press the ■ button to stop recording.
5. Press the ■ button once more to stop time-shift.

See §5.5 for detailed description about the time-shift feature.

7.1.5 Recording a pay service programme

You can record a pay service programme without the subscription card. However, you need the subscription card to play it back because it has not been descrambled. So it is recommended to record pay service programmes with a proper subscription card so that they can be descrambled and recorded. In that case, you can enjoy them without the subscription card like free services.

To record a programme of a pay service in descrambled form, take the following steps:

1. Select a programme of a pay service you want to record.
2. Make sure that the subscription card is inserted in the slot on the front of the digital receiver.
3. Start recording.
4. Do not switch to other service nor use time-shift until recording is finished.

NOTE

If you switch to other service or use time-shift in the middle of recording a pay programme, it will be recorded without descrambling from that moment. Even if the recording is only partially descrambled, you need the subscription card to play it back.

7.2 File archive

When a programme is recorded, it is stored as a file on the hard drive of the digital receiver. You can select a recording to play back from the recorded programme list.

Select the Recording > Recorded Program menu or alternatively press the [▤] button to display the recorded programme list. The file information is comprised of the following elements: file number, file name, recording time, running time, file size and so on.

You can play, move, delete, rename and lock a recording file. You can also sort the recording files by file name, running time or file size. In addition, you can make a new folder.

7.2.1 To delete a recording

To delete a recording, put the highlight bar on it and press the [F4] button, then you get asked for confirmation. With the choice of Yes, it will be deleted.

7.2.2 To sort recordings

To sort the recordings, take the following steps:

1. Press the [Option] button to display additional options.
2. Set the Sorting option to Alphabetic, Time or Size as you want.
3. Press the [EXIT] button.
4. They will be sorted by the specified option.

7.2.3 To lock a recording

To lock a recording so that other persons cannot play or delete it, take the following steps:

1. Put the highlight bar on a desired recording.
2. Press the [Option] button to display additional options.

3. Set the Lock option to Locked.
4. Press the EXIT button.
5. The lock symbol (🔑) is displayed on it.

If you select a locked recording to play it back, you will be asked for your personal identification number.

7.2.4 To rename a recording

To change a recording's name, take the following steps:

1. Put the highlight bar on a desired recording.
2. Press the Option button to display additional options.
3. Select the Rename option, and the on-screen keyboard appears. Change the name and save it. See §6.3 as to how to use the on-screen keyboard.

7.2.5 To make a new folder

To make a new folder, press the F2 button, then a new folder named GROUP # is created. You can change its name in the same manner as renaming a recording. See above.

7.2.6 To move a recording to another folder

To move a recording to another folder, put the highlight bar on a desired recording and press the F3 button. If an external hard drive is connected to the digital receiver, you get asked to select between the built-in and external hard drive. Select Internal, then the folders are listed. Once you choose a folder, the recording is moved to it.

7.3 Playing back a recording

When a programme is recorded, its additional contents such as audio track or subtitle track are also recorded together. So you can enjoy them while playing back a recording.

The instructions on how to play a recording are as follows:

1. Select the Recording > Recorded Program menu or alternatively press the button to display the list of recorded programmes.
2. Put the highlight bar on a desired recording and press the OK button, then an option box pops up.
3. To play from beginning, set the Starting Position option to Beginning; to play from the point that you have stopped at the last time, set it to Continuing. To start playback, select the Play item.
4. To stop playback, press the button.

During playback, you can enjoy the following tricks:

- To see the detailed information about the currently played recording, press the button; then the information box appears and shows its file name, running time, programme information, and so on.
- To pause playback, press the button. To resume it, press the button.
- To view the progress bar, press the button; to hide it, press the button again.
- When the progress bar is hidden, you can move to a desired scene by entering a progress percentage with the numeric buttons.

7.3.1 To navigate using the progress bar

First press the button to display the progress bar.

- To go forward, hold down the button; to go backward, hold down the button.
- If there are no bookmarks, you can jump forward by the minute set to the Jump time Interval option with the F3 button. See §4.7 for that option. Refer to §7.3.4 as to how to bookmark a position.
- To jump to the beginning, press the button.

- To jump to the end, press the ⏭ button.
- To hide the progress bar, press the ▶ button again.

7.3.2 To play in slow motion

To watch in slow motion during a playback, press the ⏯ button. If you press it repeatedly, the playback speed changes in 4 steps: 1/2, 1/4, 1/8 and 1/16 times. To resume normal speed, press the ▶ button.

7.3.3 To play in fast motion

To watch in fast motion during a playback, press the ⏩ button. If you press it repeatedly, the playback speed changes. To resume normal speed, press the ▶ button.

You can play not only forward but also backward in fast motion. To play backward, press the ⏪ button. If you press it repeatedly, the playback speed changes. To resume normal speed, press the ▶ button.

You can change the playback speed in 3 steps (4, 16 and 64 times) or in 6 steps (2, 4, 8, 16, 32 and 64 times). See §4.7.

7.3.4 To make a bookmark

You can mark favourite parts of a recording by creating bookmarks and then jump to them in sequence. Bookmarks are stored with the recording so that you can use them again afterwards. To make bookmarks, take the following steps during playback:

1. Press the ▶ button to display the progress bar.

2. To add a bookmark, press the F2 button at a desired scene, then you will see a small pointer appear above the progress bar like in the picture above.
3. To jump forward to the next bookmark, press the F3 button.

7.3.5 To play back a recording repeatedly

You can play back a recording repeatedly both in whole and in part.

To play back in whole, press the ⏭ button when the progress bar is hidden, then the repetition symbol (🔁) is displayed on the information box. To cancel it, press the ⏭ button again.

To play back in part, take the following steps:

1. Press the ▶ button to display the progress bar.
2. Move to the beginning scene of the part you want to play repeatedly by holding down the ◀◀ or ▶▶ button.
3. Press the ⏭ button, then the pointer starts to blink.
4. Move to the end scene; the selected part is marked in black.
5. Press the ⏭ button again to start repeated playback.
6. To cancel it, press the ⏭ button when the progress bar is displayed.

7.3.6 To play back recordings in sequence

You can play several recordings continuously in sequence by performing the following steps:

1. Press the ☰ button or alternatively select the Recording > Recorded Program menu to display the list of recorded programmes.
2. Select each desired recording with the F1 button. Once a recording is selected, it gets numbered.
3. Press the ▶ button to start playback.

4. The selected recordings are played in the sequence that they are numbered.
5. To jump to the beginning of the next recording in the queue, press the ▸ button to display the progress bar, then press the ▸| button.

7.3.7 To play back a scrambled recording

If you have recorded a programme of a pay service with the subscription card, you can play it as freely like that of a free service. Otherwise you need the subscription card to play it back because it has been recorded without descrambling even though it may have been partially descrambled.

On the recorded programme list, a purely green **$** indicates the recording has been wholly descrambled; on the other hand, a yellowish green **$** indicates it has been partially descrambled, and a purely yellow **$** indicates it has not been descrambled at all.

There are two ways to fully descramble a scrambled recording so that you can play it back without the subscription card later on. One is to make a copy while playing it back to the end; the other is to make the copy job to be carried out as a timer event.

The first method is very easy to carry out. When you select an entry to play in the recorded programme list, the playback option box appears. Simply set the Descramble Mode option to Auto Recording. Then a descrambled copy will be created while you are watching it.

NOTE

You should get the scrambled recordings descrambled as soon as possible. You could lose the chance to descramble forever if you hang around too long because broadcasting operators frequently changes the key signal for descrambling.

7.4 Editing a recording

You can cut out or save a part such as commercial from a recording by performing the following steps:

1. Press the ▶ button to display the progress bar during a playback.
2. Move to the beginning scene of the part you want to edit by holding down the ◎ or ◎ button.
3. Press the ⏭ button, then the pointer starts to blink.
4. Move to the end scene; the part is marked in black.
5. Press the F4 button, then the edit options are displayed.
6. If you choose the Cut option, it will be removed from the original recording and discarded.
7. If you choose the Save option, the cut will be saved in a new file which is named after the original recording with a suffix of 'CUT' and a number.

NOTE

Edited files cannot be fast-forwarded and rewinded. The F4 and F3 buttons are still active for this feature.

7.5 Copying a recording

You can record the file in whole or in part during a playback by performing the following steps:

1. Start playback of a recording you want.
2. Move to a scene from which you want to start copying by holding down the ◎ or ◎ button.
3. Press the ● button, then it will be copied in a new file which is named after the original recording with a suffix of 'COPY' and a number.
4. To stop copying, press the ■ button.

7.6 Formatting the hard disk

If a new hard drive is installed, it must be formatted because you can neither record nor use time-shift with an unformatted hard disk.

You can delete permanently all contents stored in a hard drive by formatting it. Select the Installation > System Recovery > Format Hard Disk menu, and then select the hard drive you want to format. To format the built-in hard drive, select the option to Internal; otherwise to format the external hard drive which is connected to the digital receiver, select the option to External. With pressing the OK button, you get asked for confirmation. Formatting will start with the choice of Yes.

NOTE

The hard drive on the digital receiver will be formatted in the JFS file system.

Chapter 8

Entertainment

This digital receiver provides several special features for entertainment.

NOTE

To fully enjoy all of the features described in this chapter, you had better configure the network settings properly. As to how to configure the network settings, refer to §9.2.

8.1 Copying files

NOTE

If your external hard drive is formatted in the FAT16/32 or NTFS, it can only be read. To enable to write and read, the hard drive must be formatted in the JFS or Ext2/3 file system. As to how to format hard drive on the digital receiver, refer to §7.6.

You can copy files between the built-in hard drive and external hard drive.

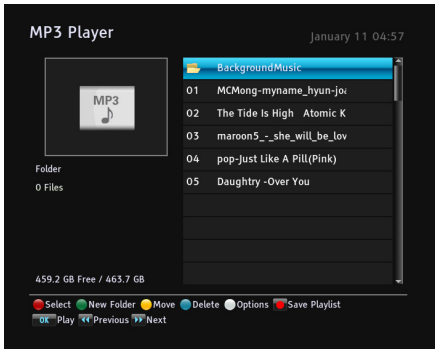
To copy from the internal to the external hard drive take the following steps:

1. Connect an external hard drive to the digital receiver.
2. Press the [≡] button and then press the [◀◀] or [▶▶] button to select a desired file list except the External list.
3. Put the highlight bar on a desired file and press the [F3] button, then you get asked to select between the built-in and external hard drive.
4. Select External, then the folders are listed.
5. Select a destination folder and press the [OK] button, then the selected file will be copied into the external hard drive.

To copy from the external to the internal hard drive, take the following steps:

1. Connect an external hard drive to the digital receiver.
2. Press the [≡] button and then press the [◀◀] or [▶▶] button to select the External List.
3. Put the highlight bar on a desired file and press the [F3] button, then the list of folders gets displayed.
4. Select a folder in the built-in hard drive.
5. Press the [OK] button, then the selected file will be copied into the built-in hard drive.

8.2 Playing back MP3 files



You can enjoy music or audio books in MP3 format on the digital receiver. Refer to §8.1 as to how to copy a file from an external hard drive into the built-in hard drive of the digital receiver. To play an MP3 file, take the following steps:

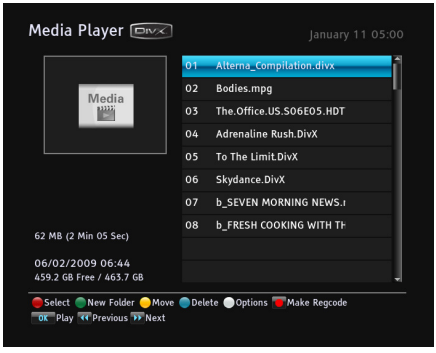
1. Select the Entertainment > MP3 Player or press the [≡] button and then the [◀◀] or [▶▶] button to display the MP3 file list.
2. Put the highlight bar on a desired file; if you want to play several files, select them with the [F1] button.
3. Press the [▶] button to start playback.
4. To stop playback, press the [■] button.

To play all MP3 files in a subfolder, put the highlight bar on a desired folder, and press the [▶] button. To change from one file to the next or previous file, use the [▶|] or [|◀] buttons.

8.3 Playing back a video file

You can play back media files such as photos, videos and music with this digital receiver. Media file formats that you can play back with the digital receiver are as follows:

- video: DivX, XviD, vob, mkv, mp4, and avi;
- photo: jpg;
- music: MP3.



Refer to §8.1 as to how to copy a file from an external hard drive into the built-in hard drive of the digital receiver. To play a video file, take the following steps:

1. Select the Entertainment > Media Player or press the [≡] button, and then the [◀◀] or [▶▶] button to display the video file list.
2. Put the highlight bar on a desired file; if you want to play several files, select them with the [F1] button.
3. Press the [▶] button to start playback.
4. If it has its own one or more subtitle files, you can select one you prefer with the [▭] button to display subtitle.
5. To stop playback, press the [■] button.

NOTE

This digital receiver supports only version 3.x, 4.x, 5.x, and 6.x of the Divx format.

8

8.4 Network game

You can play a network game named Battle Tank on the digital receiver. You can play the game by yourself or with others via the network.

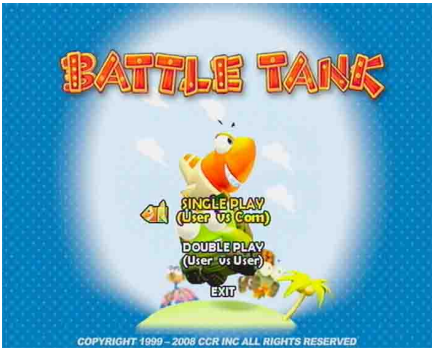
8.4.1 Single mode

To play the game in single mode, select the Entertainment > Game > Battle Tank (Single), then take the following steps:

1. Select game mode.
2. Select a character.
3. Buy items as you desire.
4. Select a map. If you play the game by yourself, you do not need to select a map.
5. Start playing.

If you want to out of the game while palying, press the EXIT button on the remote control.

Selecting game mode



When you select the Entertainment > Game > Battle Tank (Single), you should see a screen like the left figure.

You can select game mode as you desire. If you want to out of the game, select the EXIT option.

There are two modes as below:

Single play playing by yourself.

Double play playing with another user.

Select a mode with the ◎ and ◎ buttons and press the OK button.

Selecting a character

After selecting game mode, you should see a screen like the left figure.

Select a character referring to Table 8.1.

If you select the ?, a character will be chosen randomly.

When you play the game for the first time, you can select only two characters. To get a new character, you have to play in single mode and clear all 13 stages.

Table 8.1: Buttons for selection

Action	1 Player	2 Player
Left		
Right		
Up		
Down		startbutton
Select	OK	F2

You can see the selected character's information of the 1 Player on the left bottom of the screen. Also you can see the selected character's information of the COM or 2 Player on the right bottom of the screen. You have to select a character in 30 seconds; otherwise, the character will be selected automatically.

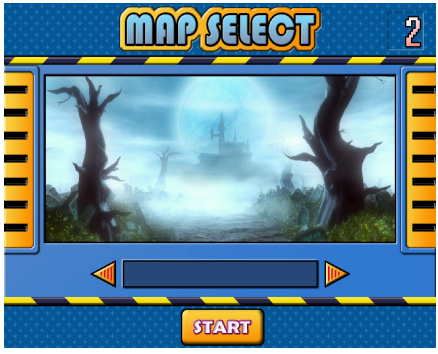
Buying items

After selecting a character, you should see a screen like the left figure. Buy a item referring to Table 8.1.

When you finish selecting items, select the READY on the screen as follows:

- **1 Player** : Select the READY using the MENU button and press the OK button.
- **2 Player** : Select the READY using the F1 button and press the F2 button.

Selecting a map



After buying items, you should see a screen like the left figure.

Select a map with the and buttons.

After selecting a map, select the START on the screen.

Select the START using the MENU button and press the OK button. If you play the game by yourself, you do not need to select a map.

Playing the Battle Tank

When you start the game, you should see a sceen like the following figure. Play the game referring to Table 8.2.

1 The character's weapons.

2 The angle of the character.

3 You can see the direction and speed of wind.

4 You can see the information of the character as follows:

ENERGY displays the character's energy.
POWER displays the power of shot.
MOVE displays the movement bar.

5 You can check your position and enemy's position on this mini-map.

6 You can use those items during playing game.

7 Displays current player.

8 Displays the turn time. If the time is over, turn will be changed to the other player.

Table 8.2: Buttons for playing

Action	Remote Control
Changing weapon	3 4
Changing angle	
Moving character	
Using items	7 8 9 0
Skipping turn	5
Changing view of map	startbutton
Firing a shot	OK

8.4.2 Network mode

To play the game in network mode, select the Entertainment > Game > Battle Tank (Network), and then take the following steps:

1. Select a game server.
2. Log on to the game server.
3. Joining a game.
4. Selecting a character, map and items for playing.
5. Start playing.

NOTE

Refer to the Battle Tank user guide as to how to play Battle Tank in network mode. You can download it from the Topfield website, http://www.i-topfield.com.

Chapter 9

Accessing via Network

NOTE

The following section describes complex functions that should only be used by owners with advanced computer knowledge.

This digital receiver provides features of web service and FTP service, by which through the network you can make scheduled recordings, or transfer recording files to your computer.

Here you need a router, which will connect the digital receiver to your computer or to the Internet.

To use the network features of the digital receiver, you should take the following steps:

1. Configuring your router for the digital receiver.
2. Configuring the network settings on the digital receiver.
3. Accessing the home page of the digital receiver. Refer to §9.3 for detailed description about things you can do by using the web service of the digital receiver.
4. Accessing the FTP Server of the digital receiver.

NOTE

The web server and FTP server of the digital receiver do not work in standby mode. So it must be powered up at all times if you wish to use the web service at any time.

9.1 Configuring the router

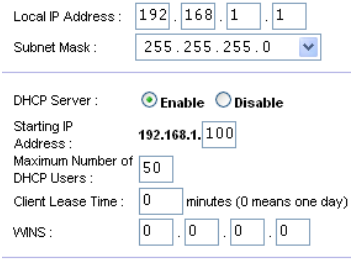
In this section, the setup program of *WRT54G*, which is a router manufactured by *Linksys*, will be referred to as an example of how to configure the router for network access.

NOTE

For detailed description about how to set up the router, refer to the manual of your router.

9.1.1 To access within the local area network

Once your router is powered up, a local area network gets created whether or not it is connected to the Internet.


Local IP Address : 192 . 168 . 1 . 1
Subnet Mask : 255.255.255.0
DHCP Server : Enable Disable
Starting IP Address : 192.168.1. 100
Maximum Number of DHCP Users : 50
Client Lease Time : 0 minutes (0 means one day)
WINS : 0 . 0 . 0 . 0

You can let the router automatically assign a dynamic IP address to the computers or devices connected to the network by enabling the DHCP server of the router. In this case, you can access the digital receiver with the IP address which is assigned to the digital receiver by the router.

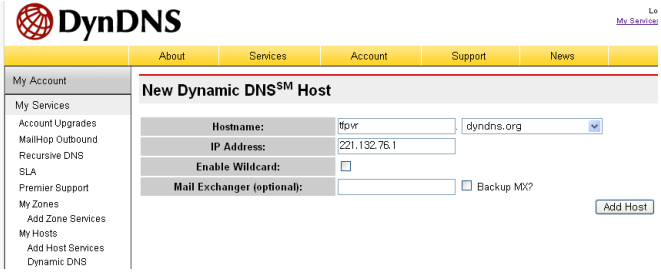
If the digital receiver reboots, a new dynamic IP address will be assigned to it. You had better assign a static IP address to the digital receiver to avoid this inconvenience. As to how to assign a static IP address, refer to the manual of your router; as to how to specify a static IP address on the digital receiver, see §9.2.

9.1.2 To access over the Internet

When you are away from home, you can access the digital receiver inside your home if your router is configured to route access to the digital receiver by means of port forwarding. Via this feature, your router will lead you to the digital receiver when you access your router with its IP address.

Port Range					
Application	Start	End	Protocol	IP Address	Enable
PVRHTTP	80 to	80	Both	192.168.1. 161	☑
PVRFTP	20 to	21	Both	192.168.1. 161	☑
	0 to	0	Both	192.168.1. 0	☐
	0 to	0	Both	192.168.1. 0	☐

Your router may be assigned to a dynamic IP address by an Internet service provider. So if the router has rebooted, you cannot access it unless someone in your home can inform you of the changed IP address. However, many routers support Dynamic Domain Name System (DDNS) service, which can settle this problem. The following image is an example of one such DDNS service provider.



If you use a DDNS service, you can access your router with a domain name. The instructions on how to use the DDNS service are as follows:

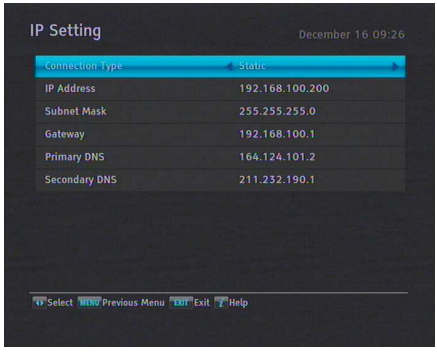
1. Make an account on a web site providing DDNS service,

which should be supported by your router.

2. Configure your router with the account so that it can communicate with the web site.

Whenever a new dynamic IP address is assigned to the router, it will inform the DDNS service provider of the new IP address. This makes it possible that you access the router with a domain name at any time.

9.2 Configuring the network setting on the digital receiver



You should configure the network settings to enable the web service and FTP service. Select the Installation > Network Setting > IP Setting menu.

The easiest way to configure the network settings is to assign a dynamic IP address to the digital receiver by setting the Connection Type option to DHCP.

When the digital receiver is restarted, the dynamic IP address could be changed more often than not, and you will have to check what it is to access the digital receiver. To avoid this

cumbersome thing, you had better assign a static IP address rather than dynamic one.

To assign a static IP address, set the Connection Type option to Static, then the IP Address, Subnet Mask, Gateway, Primary DNS and Secondary DNS options become enabled. You have to set these options to match with the configuration of your router.

9.3 Accessing the web server

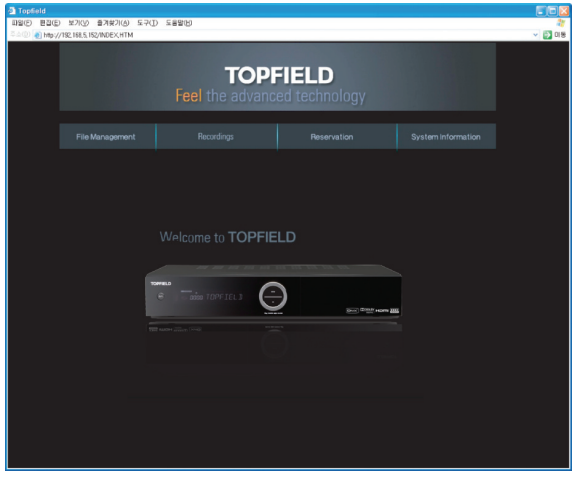
To Access to the web server, set the Installation > Network Setting > Web Server option to Enable.

Select the Installation > Network Setting > User Info menu. At this time, you have to enter Personal Identification Number (PIN). Then set the User ID and Password options as you desire. And select OK to save the settings. When you access to the web server, you will be asked for the account that was made with these options.

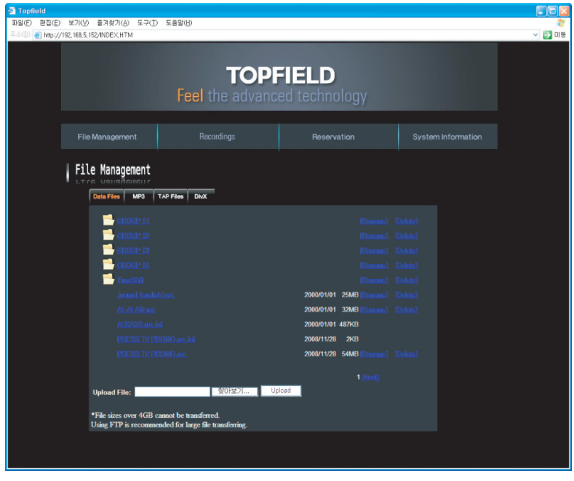
In way of the web server of the digital receiver, you can do the following:

- Download recording files.
- Create new recording timers.
- View information about the programme currently being recorded.
- View the system information of the digital receiver.

To access the digital receiver's home page through your web browser, enter its IP address, or domain name if you use a DDNS service. For the DDNS service, refer to the user manual of your router.



You cannot only download but also upload recording files or MP3 files in the File Management page. However, if you wish to download or upload a file of which size is 2 gigabyte or more, it is recommended using the FTP server rather than the web server.



NOTE

The maximum number of user connections is one. This means that you cannot access the web server while someone else is occupying it.

9.4 Accessing the FTP server

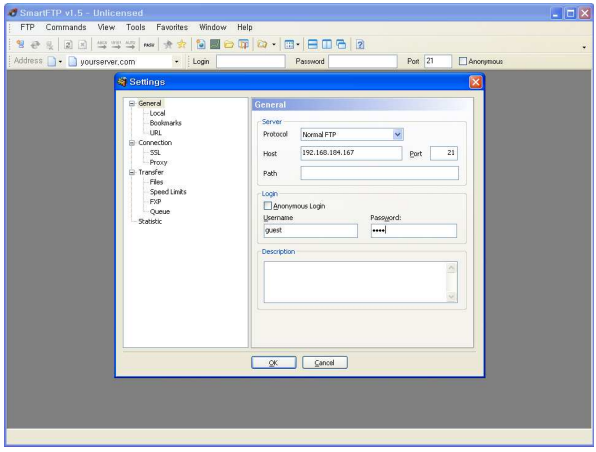
To Access to the FTP server, set the Installation > Network Setting > FTP Server option to Enable.

Select the Installation > Network Setting > User Info menu. At this time, you have to enter Personal Identification Number (PIN). Then set the User ID and Password options as you desire. And select OK to save the settings. When you access to the FTP server, you will be asked for the account that was made with these options.

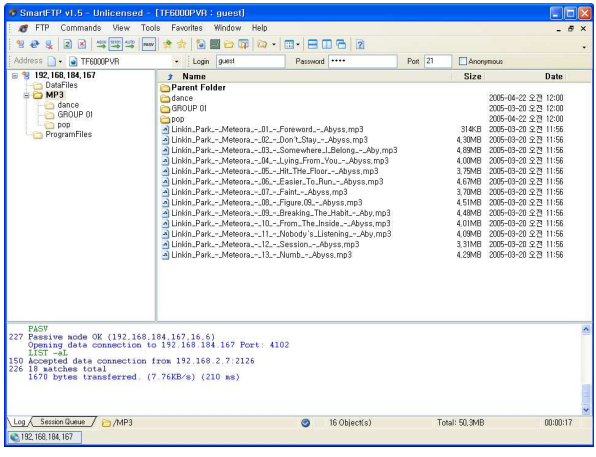
NOTE

You can access the FTP server with an anonymous account. However, with an anonymous account you can only download files. You cannot upload files.

You need an FTP client program to access the FTP server of the digital receiver.



You can log into the FTP server with the user name and password specified in the Installation > Network Setting > User Info menu.



NOTE

The maximum number of user connections is one. This means that you cannot access the FTP server while someone

else is occupying it.

Chapter 10

Topfield Application Program

If you are good at programming with *C/C++* language, you may make an executable program to run on the digital receiver. We call user-made programs TopfieldApplication Programs (TAP).

For TAPs writers, Topfield provides two versions of *gcc* compilier and TAP API (Application Program Interface) libraries that are available from Topfield's website, http://www.i-topfield.com/eng/download/utility_list.asp. One is *Linux* version, and the other is *Cygwin* version.

Cygwin is a Unix-like environment and command-line interface for *Microsoft Windows*.

Your TAPs will be run with the following conditions:

- A TAP's file extension must be *tap*; if it has any other extension name, it will be ignored.

- TAPs must be situated in the Program Files folder; if they are placed in any other folder, they will be ignored.

As to how to transfer your TAPs to the digital receiver, refer to §8.1 or Chapter 9.

To run a TAP in the digital receiver, take the following steps:

1. Press the [≡] button and then the [◀◀] or [▶▶] button to display the program files list.
2. Place the highlight bar on a program file you want to run, and press the [OK] button to start it up.
3. If it is a running-in-the-background program, its entry in the list gets marked in green when it starts. You may have several programs run in the background at a time.
4. To stop a program running in the background, place the highlight bar on its entry in the list, and press the [OK] button; otherwise you can stop it with the [EXIT] button.

The figure on the left is a screenshot of *ScreenCapture.tap*, with which you can capture screen in *bmp* format from the digital receiver. Not only this TAP but a lot of sample TAPs are available in the TAP API.

By the way, the digital receiver will not show the list of the screenshots saved by the *ScreenCapture.tap* because *bmp* files are supposed to be ignored by the digital receiver. So, to view the screenshots, you need to transfer them to your computer via FTP.

If you want to have a program automatically run when the digital receiver starts up, then move the program file to the Au-

toStart folder. If you want to abort the execution of it, press the 0 button at start-up.

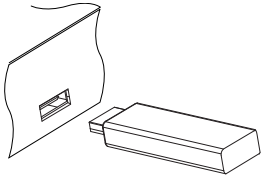
Chapter 11

Firmware Update

The digital receiver has a stable and convenient firmware to use. However, once in a while a new firmware may be released to improve the digital receiver. You can get the latest firmware and the firmware update tool, which runs on most versions of Windows, from the Topfield website, http://www.i-topfield.com.

11.1 From a memory stick

If you have a USB memory stick, you can update the firmware from it by taking the following steps:



1. Download a new firmware from the Topfield website.
2. Copy the firmware file to your memory stick.
3. Insert the USB memory stick into the USB port on the digital receiver.
4. Select the Installation > Firmware Upgrade > USB Firmware Upgrade menu, and the files in the USB memory will be listed.

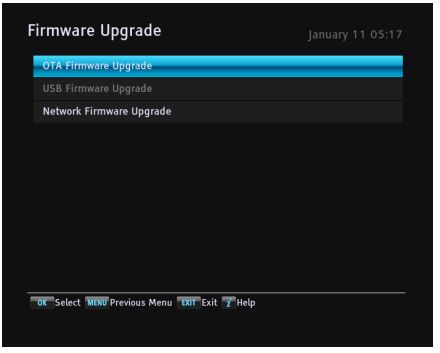
5. Place the highlight bar on the right firmware file and press the OK button, and a countdown will be displayed on the front display of the digital receiver.
6. When the message of 'END' appears, restart the digital receiver.

11.2 From the firmware server via the Internet

You can update the firmware from the firmware server which is being run by Topfield via the Internet. Make sure that the digital receiver is connected to your router before configuring the network settings on the digital receiver.

NOTE

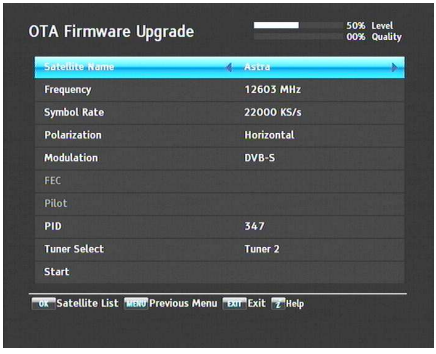
For detailed description about how to set up the router, refer to the manual of your router.



Select the Installation > Firmware Upgrade > Network Firmware Upgrade menu. You should see a screen like the left figure.

To enable the digital receiver to update the firmware automatically when a new firmware is available, set the Automatic Upgrade option to Enable. Otherwise if you want to do that by yourself, select the Start firmware upgrade option, then you get asked for confirmation. With the choice of Yes, it will check up whether a new firmware is available, and it starts firmware update if any.

11.3 Over the air



You can get a new firmware over the air. Select the Installation > Firmware Upgrade > OTA Firmware Upgrade menu. You should see a screen like the left figure.

Satellite	*Astra* (19.2° E)
Frequency	12603 MHz
Symbol Rate	22000 KS/s
Polarisation	Horizontal
PID	347

On the left table is presented the transponder information appointed by the manufacturer, Topfield, for firmware update.

This transponder information can be changed. You can get the information from the website, http://www.i-topfield.com. Selecting the Start command starts firmware update.

Appendix A

Universal Remote Control

The universal remote control allows you to operate the most important functions such as power on/off and volume control on your television, audio-video receiver, or DVD player. For the use of buttons, refer to Table A.1. To be able to control the device, you must adapt the remote control to the device first.

Take the following steps:

1. Turn on the device you want to operate.
2. Point the remote control at the remote sensor on the device.
3. Hold down the OK and device button simultaneously for two seconds until the light flashes on. For example, if you want to operate your television with the remote control, press the OK and TV buttons simultaneously.
4. Find the manufacturer of the device from the codes list.
5. Enter the three-digits code you have found for your device and press the OK button.
6. If the setting is finished correctly, the light blinks twice and the device will be turned off. Otherwise, repeat from the step 2.

If you cannot find a code for your device, do as follows:

1. Turn on the device you want to operate.
2. Point the remote control at the remote sensor on the device.
3. Hold down the OK and device button simultaneously for two seconds until the light flashes on. For example, if you want to operate your television with the remote control, press the OK and TV buttons simultaneously.
4. Press the CHANNEL+ or CHANNEL− button until the device turns off.

If you want to find out the number which you set for your device, do as follows:

1. Hold down the OK and device button simultaneously for two seconds. For example, if you want to know the number which you set for your television, press the OK and TV buttons simultaneously.
2. Press the *i* button. Then the light will show the number with blinks. For example, if the number is 3, the light will blink three times. In case of 0, the light will blink ten times.

You can reset the settings by doing as follows:

1. Hold down the TV and 0 buttons simultaneously for more than five seconds.
2. Each device button blinks three times in the following order: PVR → DVD → AUX → TV
3. After that, all settings will be reset to the manufacturer's factory settings.

NOTE

Some buttons may not work properly depending on a device. If your device code is not listed on the following pages, you will not be able to use this remote as a universal remote for your specific device.

Table A.1: Operating buttons

PVR	TV	DVD	AUX
	Power on/off	Power on/off	Power on/off
VOLUME +	Volume up	Volume up	Volume up
VOLUME −	Volume down	Volume down	Volume down
	Mute	X	Mute
CHANNEL +	X	X	Channel up
CHANNEL −	X	X	Channel down
0	0	0	X
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
i	TV INPUT	X	X
	X	Up	X
	X	Down	X
OK	X	OK	X
	Left	Left	X
	Right	Right	Right
MENU	X	Menu	X
GUIDE	X	Guide	X
EXIT	X	Exit	Exit
■	X	Stop	X
◀◀	X	Rewind	X
❚❚	X	Pause	X
▶	X	Play	X
▶▶	X	Fast forward	X

A.1 Code list for television sets

A

ACCENT	049, 063
ACEC	112
ACURA	195
ADMIRAL	065, 076, 163, 171, 190, 307, 324, 369
ADYSON	379
AGASHI	076, 379
AGEF	324
AIKO	049, 063, 076, 102, 141, 172, 195, 225, 379
AIM	049, 063
AIWA	376, 377
AKAI	019, 049, 050, 055, 063, 076, 102, 107, 123, 133, 139, 141, 150, 172, 174, 182, 195, 209, 225, 326, 333, 379, 428, 432, 433, 437
AKIBA	006, 049, 063, 123, 380
AKITO	049, 063, 106
AKURA	006, 049, 076, 096, 123, 195, 419, 426
ALARON	042, 334
ALBA	018, 044, 049, 050, 107, 123, 134, 163, 179, 184, 195, 225, 228, 232, 239, 379, 413, 421, 431
ALBIRAL	121, 326, 372
ALCYON	407
ALLORGAN	050, 094, 236, 334
ALLSTAR	049, 063
AMPLIVISION	113, 379, 421, 425
AMSTRAD	004, 011, 049, 063, 076, 123, 131, 172, 195, 225, 426
ANAM	049, 063, 195
ANGLO	076, 195
ANITECH	049, 063, 076, 195, 407
ANSONIC	045, 049, 063, 107, 112, 195, 210, 242, 391, 413, 421
APOLLO	165
ARC EN CIEL	029, 034, 074, 182, 186, 415, 424
ARCAM	029, 379, 424
ARDEM	392
ARISTONA	049, 050, 063, 065, 079, 112, 158, 160, 188
A.R.SYSTEM	049, 063
ARTHUR MARTIN	075, 107, 127, 133, 136, 139, 148, 153, 307, 425
ASA	003, 020, 065, 078, 080, 091, 117, 146, 171, 197, 235, 307, 319, 324, 341, 375, 406, 408
ASBERG	049, 063, 407
ASORA	195
ASTRA	195
ASUKA	006, 050, 076, 123, 379
ATLANTIC	049, 050, 063, 113, 236, 242, 379
ATORI	195
AUCHAN	107, 425
AUDIOSONIC	031, 049, 063, 074, 076, 195, 213, 379, 392, 421
AUDIOTON	050, 076, 379, 392, 421
AUSIND	075, 090, 407
AUTOVOX	050, 071, 078, 079, 080, 083, 090, 147, 156, 236, 254, 305, 319, 323, 324, 379, 407, 413, 416
AWA	018, 049, 063, 131, 195, 206, 320, 379, 426, 433
AYOMI	411

B

BAIRD	074, 102, 182, 209, 321, 329, 379, 409
BANG & OLUFSEN	324

BARCO 107, 355, 371, 372, 422
BASIC LINE 006, 031, 049, 107, 123, 159, 195, 207, 226
BASTIDE 379
BAUR 012, 049, 053, 063, 107, 150, 172, 244, 245, 246, 247, 301, 357, 414, 416
BAZIN 379
BEKO 063, 184, 240, 241, 392, 421, 433
BEON 049, 063, 163
BEST 213, 421
BESTAR 049, 063, 421
BINATONE 379
BLACK STAR 413
BLACKTRON 006
BLACKWAY 006
BLAUPUNKT 019, 053, 057, 060, 113, 118, 244, 245, 246, 247, 248, 249, 308
BLUE SKY 006, 049, 063, 123, 195, 232
BLUE STAR 006
BONDSTEC 413
BOOTS 050, 106, 379
BPL 006, 049, 063
BRANDT 074, 182, 218, 415, 424, 436
BRANDT ELECTRONIQUE 029, 034, 074, 182, 186
BRINKMANN 049, 063, 163
BRION VEGA 049, 063, 065, 083, 167, 172, 173, 181, 196, 324, 356
BRITANNIA 379
BROTHER 076
BRUNS 056, 065, 324
BSR 094, 107, 110, 139, 168, 314
BTC 123
BUSH 006, 018, 049, 076, 094, 106, 107, 123, 134, 139, 142, 143, 172, 179, 195, 209, 223, 225, 226, 232, 239, 307, 379, 416
BUSH (UK) 107, 147, 168

C

CAPSONIC 076
CARAD 049, 063
CARENA 049, 063, 380
CARREFOUR 018, 406
CARVER 177
CASCADE 049, 063, 064, 195
CASIO 049, 063
CATHAY 049, 063
CCE 049, 063, 379
CENTURION 049, 063
CENTURY 044, 054, 065, 163, 189, 324, 411, 413
CGE 002, 044, 054, 090, 093, 094, 096, 107, 139, 142, 163, 168, 189, 369, 407, 413, 421
CIHAN 111
CIMLINE 031, 123, 134, 195
CITY 195
CLARIVOX 056, 121, 125, 163, 406
CLATONIC 076, 123
CLATRONIC 031, 045, 049, 063, 076, 113, 123, 195, 225, 379, 407, 413, 421, 431
CMS HIGHTEC 379
COMTEL 111, 125
CONCORDE 195
CONDOR 006, 045, 049, 050, 063, 113, 163, 195, 210, 379, 413, 421
CONTEC 018, 131, 195, 206, 302, 320, 379
CONTINENTAL EDISON 029, 034, 074, 182, 186, 232, 415, 424
COSMEL 195, 213
CROSELY 044

CROSLEY	054, 065, 090, 093, 094, 104, 107, 139, 324, 407, 413
CROWN	049, 063, 154, 163, 170, 195, 209, 232, 372, 407, 419, 421, 431
CS ELECTRONICS	031, 123, 379, 413
CTC	413
CTC CLATRONIC	045
CURTIS MATHES	126, 190, 212
CYBERTRON	123

D

DAENYK	042
DAEWOO	063, 123, 140, 145, 161, 193, 195, 379
DAINICHI	123, 379
DANSAI	063, 076, 141, 195, 379
DANSETTE	426
DANTAX	392, 421
DATSURA	209
DAWA	049, 063
DAYTRON	049, 063, 195, 226
DE GRAAF	023, 107, 122, 139, 209, 307
DECCA	049, 063, 102, 106, 111, 120, 200, 331, 379
DECCA (UK)	046, 050, 102, 106, 131
DEITRON	049, 063
DENKO	076
DENON	126, 212
DER	321
DERWENT	105
DESMET	049, 063, 113
DIAMANT	049, 063
DIGILINE	049, 063
DIXI	063, 195, 379, 413
DOMLAND	423
DORIC	104, 105
DREAN	049, 063
DTS	195
DUAL	049, 050, 063, 095, 107, 139, 156, 168, 182, 242, 243, 379, 414, 416, 423, 424
DUAL-TEC	195, 168, 050, 040
DUMONT	045, 065, 080, 102, 139, 146, 319, 324, 339, 341, 375, 379, 406, 408
DUMONT-FINLUX	020, 045, 061, 075, 078, 091, 104, 117, 147
DUX	049, 063, 112
DYNATRON	049, 063

E

ELBE	049, 063, 107, 121, 123, 172, 194, 210, 242, 337, 368, 369, 391, 411, 421, 435
ELBIT	111
ELCIT	045, 046, 047, 062, 065, 104, 107, 150, 168, 324, 413
ELECTA	006, 076
ELECTRO TECH	195
ELEKTA	006, 076
ELEKTRONSKA	318
ELG	049, 063
ELIN	003, 020, 049, 063, 107, 139, 172, 195, 379, 408, 416
ELITE	031, 049, 063, 123
ELMAN	045, 168
ELTA	076, 195, 379
EMERSON	004, 006, 042, 044, 049, 063, 065, 113, 225, 324, 327, 406, 413
EMPEROR	006
ERRES	063, 112
ESC	049, 063
ETRON	049, 063, 107, 139, 195
EURO-FEEL	076
EUROMANN	049, 063, 076, 379, 421
EUROPA	049, 063

EUROPHON 044, 045, 046, 049, 050, 063, 068, 107, 120, 168, 318, 336, 379, 413

EXPERT 107, 236, 242, 425

EXQUISIT 049, 063, 413

F

FAMILLY LIFE 049, 063

FENNER 063, 195

FERGUSON 001, 032, 050, 073, 074, 076, 080, 082, 102, 103, 121, 158, 182, 204, 218, 244, 245, 246, 251, 306, 319, 321, 322, 328, 329, 344, 409, 411, 436

FIDELITY 049, 050, 063, 076, 107, 158, 225, 307, 364, 379

FIDELITY (UK) 133

FILSAI 050, 379

FINHER 359

FINLANDIA 033, 122, 139, 172, 197, 209, 223, 307, 375, 419

FINLUX 003, 020, 042, 045, 049, 061, 063, 075, 078, 080, 090, 091, 102, 104, 107, 117, 139, 146, 147, 163, 197, 210, 235, 319, 324, 339, 341, 375, 379, 406, 407, 408, 428, 429, 437

FIRST LINE 045, 049, 063, 094, 102, 107, 134, 139, 191, 195, 209, 210, 379, 411, 413, 416

FISHER 018, 041, 050, 056, 065, 069, 102, 104, 107, 117, 139, 143, 156, 172, 189, 206, 209, 320, 324, 379, 408, 414, 416, 421

FLINT 031, 049, 063, 102, 123, 379, 380

FNR 045

FORGESTONE 158

FORMENTI 090, 107, 113, 139, 307, 324, 379, 407

FORMENTI-PHOENIX 050, 075, 104, 113, 148, 307

FORTRESS 190, 324

FRABA 049, 063, 421

FRIAC 045, 049, 063, 195

FRONTECH 076, 139, 195, 307, 379, 413, 416

FUJITSU 042, 045, 102, 107, 195, 236, 327, 379

FUJITSU GENERAL 195, 379

FUNAI 042, 076, 094, 314, 327

G

GALAXI 045, 049, 063

GALAXIS 045, 049, 063, 163, 421

GBC 031, 104, 107, 139, 143, 168, 195

GE 006, 074, 182, 218

GEANT CASINO 107, 425

GEC 049, 063, 102, 104, 107, 120, 171, 172, 192, 307, 379, 416

GEC (UK) 046, 050, 102, 107, 150, 162, 192

GELOSO 031, 047, 062, 104, 107, 139, 168, 171, 195, 307, 413

GENERAL 064, 074, 182

GENERAL TECHNIC 195

GENEXXA 049, 063, 123, 307, 426

GOLDHAND 379

GOLDLINE 213

GOODMANS 018, 042, 063, 076, 102, 134, 139, 141, 143, 155, 182, 195, 218, 225, 232, 379, 428

GORENJE 124, 189, 421

GPM 123

GRADIENTE 049, 063, 170, 177

GRAETZ	049, 063, 090, 104, 136, 139, 153, 159, 162, 171, 172, 198, 225, 307
GRANADA	013, 018, 033, 041, 063, 102, 104, 105, 112, 120, 148, 164, 165, 171, 209, 218, 237, 238, 240, 241, 252, 307, 325, 363, 379, 407, 418, 419
GRANADA (UK)	046, 050, 090, 107, 139, 143, 162, 307
GRANDIN	006, 031, 049, 063, 107, 113, 123, 195, 379, 380, 425, 431, 435
GRONIC	045
GRUNDIG	005, 019, 049, 053, 063, 080, 090, 101, 115, 118, 166, 232, 244, 245, 246, 247, 248, 249, 308, 340, 341, 406, 407

H

HALIFAX	076, 379
HAMPTON	379
HANIMEX	094
HANSEATIC	006, 018, 049, 050, 063, 094, 104, 107, 113, 143, 172, 195, 324, 379, 391, 416, 421, 423
HANTAREX	045, 046, 049, 063, 195
HANTOR	049, 063
HARLEY DAVIDSON	042
HARWOOD	049, 063, 195, 426
HAUPPAUGE	049, 063
HCM	006, 031, 049, 063, 076, 123, 163, 195, 379, 426
HEMA	195, 379
HEMMERMANN	150, 416
HIFIVOX	029, 034, 074, 182, 186, 304, 424
HIGASHI	050
HIGHLINE	049, 063, 076
HIKONA	123
HINARI	004, 018, 042, 049, 066, 094, 107, 119, 123, 133, 134, 139, 143, 179, 195, 209, 232, 307, 327
HISAWA	006, 031, 123, 380, 425
HIT	342
HITACHI	007, 009, 018, 020, 023, 033, 049, 050, 063, 074, 086, 102, 104, 107, 110, 126, 127, 139, 143, 150, 162, 168, 171, 176, 182, 185, 186, 192, 212, 218, 231, 304, 307, 309, 315, 333, 334, 344, 361, 379, 416, 418
HITASHI FUJIAN	013, 164, 252
HITSU	123, 195, 379
HORNYPHON	049, 063, 112
HOSHAI	123, 379
HUANYU	379
HYGASHI	379
HYPER	050, 168, 195, 254, 361, 379, 413
HYPERSONIC	172
HYPSON	006, 049, 063, 076, 379, 380, 411, 425

I

IBERRIA	049, 063
ICE	049, 063, 076, 123, 195, 225, 379
ICES	123, 379
IMPERIAL	002, 044, 049, 054, 063, 090, 093, 094, 107, 142, 163, 168, 189, 301, 307, 369, 407, 413, 416, 421
INDIANA	049, 063
INGELEN	090, 104, 136, 139, 153, 159, 162, 171, 198, 232, 435
INGERSOL	195

INNO HIT 044, 046, 049, 050, 063, 066, 102, 123, 155, 195, 217, 379, 407, 413
INNOVATION 049, 063
INTERACTIVE 210
INTERBUY 076, 195, 413
INTERFUNK 049, 063, 065, 067, 074, 090, 104, 107, 112, 139, 150, 153, 159, 172, 182, 301, 302, 324, 363, 421
INTERVISION 006, 045, 049, 055, 063, 076, 107, 123, 225, 232, 378, 379, 380, 381, 382, 384, 385, 386, 387, 388, 389, 413, 421, 423
IRRADIO 031, 049, 063, 066, 075, 090, 123, 155, 195, 254, 407, 413
ISUKAI 006, 049, 063, 123
ITC 379
ITS 006, 031, 049, 063, 076, 123, 225, 379
ITT 042, 090, 107, 117, 134, 139, 150, 157, 159, 162, 165, 171, 172, 193, 197, 198, 209, 301, 307, 343, 350, 375, 416, 428
ITT-NOKIA 042, 090, 097, 104, 107, 117, 134, 136, 139, 150, 153, 159, 162, 165, 171, 172, 185, 193, 197, 198, 209, 301, 307, 343, 350, 375, 416, 428, 433, 435, 437
ITV 049, 063, 076, 413

J

JEAN 018
JEC 141
JET POINT 365
JVC 018, 103, 123, 129, 143, 158, 170, 174, 182, 225, 364, 409, 433

K

KAISUI 006, 031, 049, 050, 063, 123, 195, 207, 379, 380
KAMOSONIC 050
KAMP 379
KAPSCH 107, 172, 236, 242, 408
KARCHER 003, 006, 020, 031, 045, 049, 050, 063, 068, 076, 107, 195, 207, 217, 421, 435
KATHREIN 124
KAWASHO 379
KB ARISTOCRAT 107
KENDO 044, 045, 049, 055, 063, 134, 172, 210, 413, 421, 435
KENNEDY 071, 079, 104, 107, 139, 236, 305, 323, 369
KINGSLEY 379
KLARMAX 371, 372
KNEISSEL 049, 063, 210, 242, 369, 391, 411, 421, 435
KOLSTER 045, 049, 063, 416
KONKA 031, 049, 063, 123, 225, 232
KORPEL 049, 063
KORTING 027, 065, 094, 113, 324, 421
KOSMOS 049, 063
KOTRON 076, 426
KRAKING 411
KRIESLER 050, 063, 065, 079, 112, 158, 160, 188
KTV 050, 379
KYOSHU 076, 163
KYOTO 107
KYUSHU 426

L

LECSON 049, 063
LEMAIR 210

LENCO	049, 063, 107, 195, 408
LENOIR	050, 195
LESA	413
LEYCO	049, 063, 076, 094, 102, 431
LEYEO	076
LG (GOLDSTAR)	023, 049, 050, 055, 063, 107, 139, 152, 155, 168, 172, 195, 202, 203, 219, 254, 379, 413, 421
LIESENKOTTER	049, 063, 112
LIFETEC	049, 063, 076, 123, 195
LLOYD'S	195
LOEWE	049, 063, 089, 324, 391, 421
LOEWE OPTA	035, 046, 049, 052, 063, 065, 120, 144, 213, 324
LOGIC	331
LOGIK	032, 131, 158, 225, 364
LOGIX	195
LUMA	063, 107, 110, 133, 171, 172, 195, 210, 236, 242, 307
LUMATRON	049, 063, 076, 107, 172, 236, 242, 329, 379
LUX MAY	049, 063, 195
LUXOR	042, 050, 090, 107, 122, 127, 133, 139, 150, 155, 159, 165, 172, 185, 197, 209, 307, 312, 330, 416, 418, 428, 429
LYCO	076

M

M ELECTRONIC	003, 235, 375
MAAZ	371, 372
MADISON	049, 063
MAGNADYNE	045, 046, 047, 062, 065, 104, 107, 120, 139, 150, 168, 318, 324, 413
MAGNAFON	045, 046, 050, 068, 075, 090, 120, 235, 336, 379, 407
MAGNAVOX	018, 042, 049, 063
MANDOR	076
MANESTH	063, 076, 094, 113, 134, 141, 379
MANHATTAN	049, 063, 195
MARANTZ	063
MARELLI	324
MARK	063, 195, 379
MASUDA	123, 195, 225
MATSUI	001, 004, 018, 041, 049, 050, 063, 094, 100, 102, 106, 107, 131, 134, 141, 143, 150, 171, 179, 180, 195, 209, 218, 225, 229, 232, 244, 245, 246, 307, 314, 331, 379, 380, 416, 431
MAXIMAL	119, 139
MAXWELL	371, 372
McMICHAEL	192
MEDIATOR	049, 063, 112
MEDION	049, 063, 195
MEGAS	435
MEGATRON	126, 212
MELECTRONIC	003, 049, 063, 074, 182, 195, 210, 375, 379, 408, 413, 416, 428, 429
MELVOX	425,
MEMOREX	099, 195
MEMPHIS	102, 195, 213
MERCURY	049, 063, 195
METZ	019, 049, 051, 053, 065, 067, 070, 092, 118, 244, 245, 246, 247, 324, 412
MICROMAXX	049, 063, 195
MINERVA	019, 053, 080, 090, 118, 232, 244, 245, 246, 247, 248, 249, 340, 341, 406, 407
MINOKA	049, 063, 419, 426
MISTRAL	158

MITSUBISHI 013, 018, 019, 021, 049, 063, 065, 105, 124, 131, 132, 143, 157, 164, 183, 190, 244, 245, 246, 252, 326, 330, 331

MIVAR 043, 046, 050, 058, 072, 081, 090, 120, 155, 318, 337, 379, 391, 407, 421, 434

MONACO 195

MORGAN'S 049, 063

MOTION 407

MOTOROLA 190

MTC 049, 063, 379, 416, 421

MTEC 106

MULTISTANDARD 045

MULTITEC 049, 063, 195

MULTITECH 031, 045, 046, 049, 050, 063, 120, 189, 195, 379, 392, 413, 416, 421

MURPHY 102, 104, 105, 107, 117, 171, 254, 307, 379, 408

MURPHY (UK) 162

MUSIKLAND 123

N

NAD 172, 209

NAIKO 049, 063

NAKIMURA 049, 063

NAONIS 036, 040, 071, 079, 110, 171

NAT 085, 149, 151

NATIONAL 033, 085, 104

NEC 018, 049, 063, 113, 131, 143, 177, 195, 379, 380

NECKERMANN 002, 012, 049, 050, 063, 065, 107, 133, 139, 163, 180, 189, 210, 247, 250, 307, 312, 324, 357, 379, 413, 416, 421

NEDIATOR 063

NEI 063, 125, 225

NESCO 042, 413

NETSAT 049, 063

NETWORK 213

NEUFUNK 049, 063, 195, 435

NEW WORLD 123

NEWTECH 049, 050, 063, 182, 195, 379

NICAMAGIC 379

NIKKAI 018, 049, 063, 076, 102, 123, 139, 141, 195, 213, 379

NIKKIA 066

NOBLEX 049, 063, 076, 359, 360

NOBLIKO 044, 045, 050, 075, 080, 090, 235, 379, 406, 407

NOGAMATIC 029, 034, 074, 182, 186, 424

NOKIA 090, 104, 107, 117, 134, 136, 139, 150, 153, 157, 159, 162, 165, 171, 172, 193, 197, 198, 209, 301, 307, 330, 343, 350, 416, 419, 428, 429, 433, 437

NORDMENDE 017, 029, 034, 038, 049, 063, 074, 083, 130, 150, 165, 174, 182, 186, 218, 244, 245, 246, 304, 307, 333, 334, 424

NOVATRONIC 003, 020, 049, 063

O

OCEANIC 086, 094, 104, 107, 108, 109, 116, 139, 159, 172, 209, 425

OCEANIC(F) 150

ODEON 076

OKANO 049, 063, 076, 102, 421

OMEGA 076

ONCEAS 050

ONWA 031, 123, 225, 432

OPERA 049, 063

OPTIMUS 099, 315

OPTONICA 190

ORBIT	049, 063
ORION	004, 042, 045, 049, 051, 063, 076, 094, 113, 131, 134, 139, 150, 179, 191, 195, 199, 216, 314, 331, 366, 367, 426
ORLINE	049, 063, 123
ORMENTI-PHOENIX	104
ORMOND	195
OSAKA	066
OSAKI	049, 063, 066, 076, 102, 106, 123, 379, 426
OSIO	049, 063, 155
OSO	123
OSUME	018, 102, 123, 302
OTTO VERSAND	012, 018, 049, 050, 053, 063, 074, 094, 104, 107, 113, 134, 139, 143, 172, 190, 244, 245, 246, 247, 250, 312, 357, 362, 379, 413, 414, 416

P

P.T ACTRON	111
PAEL	050, 075, 379
PALLADIUM	012, 049, 063, 107, 163, 210, 247, 324, 357, 379, 413, 416, 421
PALSONIC	049, 055, 063, 076, 379, 426
PANAMA	049, 063, 076, 195, 379, 413
PANASONIC	049, 063, 099, 104, 107, 137, 139, 149, 151, 172, 397, 398, 400, 401, 405
PANAVISION	049, 063, 210
PATHE CINEMA	107, 113, 121, 379, 391, 411, 416, 425
PATHE CINEMA(F)	050, 168
PATHE MARCONI	029, 034, 074, 182, 186, 415, 424
PAUSA	195
PAUZA	195
PERDIO	049, 063, 102, 107, 113
PERFEKT	049, 063
PERSHIN	425
PHILCO	002, 016, 044, 049, 054, 063, 065, 090, 093, 094, 104, 107, 126, 142, 163, 168, 189, 212, 324, 369, 407, 413, 421
PHILHARMONIC	379
PHILIPS	015, 022, 049, 050, 063, 065, 079, 089, 111, 112, 157, 158, 160, 175, 182, 188, 192, 215, 217, 220, 221, 247, 250, 313, 324, 337, 342, 350, 363, 374, 427
PHOENIX	049, 050, 063, 075, 102, 104, 107, 113, 148, 324, 379, 392, 421
PHONOLA	022, 050, 063, 065, 079, 112, 158, 160, 188, 250, 324, 379
PILOT	049, 063
PIONEER	049, 063, 074, 172, 182, 209, 218, 227, 307, 421, 427
PIONIER	392, 421
PLANTRON	049, 063, 076, 195
PLAYSONIC	379
POLICOM	074
POPPY	195
POWERPOINT	232
PRANDONI-PRINCE	044, 046, 075, 090, 120, 171, 172, 307, 407, 413
PRECISION	379
PREMIER	142
PRIMA	076, 195, 307
PRINCE	044, 046, 075, 171
PRINZ	102, 185, 416
PROFEX	107, 139, 195
PROFI-TRONIC	045, 049, 063

PROLINE 030, 049, 102, 112, 191, 366, 436
PROSONIC 049, 063, 085, 149, 151, 195, 225, 379, 421, 431
PROTECH 045, 063, 076, 139, 163, 195, 379, 413, 416
PROVISION 049, 063
PYE 050, 063, 065, 079, 112, 157, 158, 160, 188, 250
PYMI 049, 063, 112, 195, 324

Q

QUADRA VISION 425
QUASAR 045, 046, 068, 075, 099, 155, 413
QUELLE 003, 018, 019, 020, 049, 050, 053, 063, 074, 075, 076, 078, 080, 090, 091, 094, 113, 115, 117, 118, 131, 139, 146, 147, 150, 153, 155, 172, 195, 206, 235, 244, 245, 246, 247, 254, 301, 319, 320, 340, 341, 379, 406, 408, 413, 416
QUESTA 018

R

RADIALVA 049, 063, 074, 107, 123
RADIOLA 050, 063, 065, 079, 112, 158, 160, 188, 250, 342
RADIOMARELLI 045, 046, 047, 062, 063, 065, 104, 105, 150, 168, 324, 413
RADIONETTE 003, 020, 117, 150
RADIO SHACK 049, 063
RADIOTONE 049, 063, 076, 163, 195, 421, 426, 431
RAMK 341
RANDT 029
RANK 147, 406
RBM 341
RBM (UK) 147
RCA 190, 218, 436
RECOR 049, 063
RECTILIGNE 049, 063
REDIFFUSION 018, 059, 105, 139, 171, 172, 307, 343
REDIFFUSION (UK) 150, 162
REDIFUSION 104, 105
REDSTAR 049, 063
REFLEX 049, 063
REVOX 049, 063, 421
REX 036, 040, 063, 071, 079, 095, 107, 110, 171, 210, 236, 242, 243, 305, 307, 323, 338, 413
RFT 076, 102, 390, 391, 392, 393, 394, 395, 421
R-LINE 049, 063
ROADSTAR 031, 049, 063, 076, 163, 195
ROBOTRON 056, 065, 324
RODEX 049, 063
ROTEL 302
ROWSONIC 050
ROYAL LUX 421, 426
RTF 056, 065

S

SABA 014, 017, 029, 034, 038, 046, 065, 074, 077, 107, 120, 133, 139, 172, 182, 186, 218, 304, 307, 324, 333, 334, 424, 436
SACCS 121
SAGEM 006, 380, 435
SAISHO 004, 050, 076, 084, 107, 131, 132, 134, 179, 195, 233, 307, 330, 331, 379
SALORA 033, 075, 107, 127, 133, 136, 139, 148, 150, 153, 171, 172, 185, 198, 209, 301, 307, 312, 416, 418, 419

SAMBERS	045, 046, 068, 075, 090, 120, 155, 336, 407
SAMSUNG	050, 063, 066, 076, 102, 155, 189, 195, 217, 359, 360, 365, 379, 421
SANDRA	379
SANELA	411
SANSUI	049, 063, 225
SANTON	195
SANYO	003, 018, 020, 041, 049, 050, 056, 063, 065, 102, 107, 117, 131, 143, 189, 195, 198, 201, 206, 209, 302, 320, 325, 331, 351, 379, 391, 408, 421
SAVE	049, 063
SBR	063, 112, 157, 158, 192, 313
SCHAUB LORENZ	090, 104, 136, 139, 153, 159, 162, 171, 198, 307, 416, 433
SCHNEIDER	031, 040, 050, 063, 065, 069, 079, 095, 104, 107, 112, 114, 139, 148, 156, 158, 160, 168, 172, 182, 188, 195, 225, 242, 243, 250, 307, 328, 342, 379, 413, 414, 416, 423
SCOTT	042, 327
SEARS	042
SEG	018, 045, 049, 050, 056, 063, 076, 107, 172, 195, 232, 379, 413
SEI	004, 045, 049, 051, 063, 094, 107, 139, 236, 314, 324, 357, 416
SEL SINUDYNE	250
SELECO	036, 040, 063, 071, 079, 095, 107, 110, 171, 172, 210, 236, 242, 243, 305, 307, 323, 338, 339, 369
SENCORA	195
SENTRA	123, 139, 141, 195
SERINO	380, 435
SHARP	018, 094, 143, 170, 190, 206, 214, 302, 362, 364
SHORAI	042, 094
SIAM	049, 063
SIAREM	045, 046, 065, 104, 107, 120, 139, 324
SICATEL	121
SIEMENS	003, 018, 019, 023, 049, 053, 063, 066, 113, 118, 206, 244, 245, 246, 247, 248, 249, 302, 307
SIERA	050, 063, 065, 079, 112, 158, 160, 188
SIERRA	049, 063, 112
SIESTA	421
SILVA	049, 063, 379
SILVER	018, 042, 049, 063, 076, 172
SINGER	045, 047, 049, 063, 065, 104, 195, 324, 369, 413, 425
SINUDYNE	004, 031, 045, 051, 063, 065, 094, 104, 107, 134, 139, 150, 172, 210, 216, 236, 314, 324, 357, 366, 367, 416
SKANTIC	307, 418
SKY	049, 063
SOGERA	113
SOLAVOX	066, 102, 107, 123, 139, 172, 307
SONITRON	209, 379, 421
SONNECLAIR	049, 063
SONOKO	006, 050, 063, 076, 195, 379
SONOLOR	012, 107, 139, 159, 172, 209, 357, 425
SONTEC	049, 063, 094, 421
SONY	012, 018, 028, 045, 131, 143, 204, 208, 211, 331, 357, 358, 370

SOUND & VISION 031, 045, 123
SOUND WAVE 049, 113, 163
SOUNDESIGN 042
SPECTRA 195
SSANGYONG 195
STANDARD 049, 050, 063, 113, 123, 195, 379
STARLIGHT 049, 063, 076, 107, 195
STENWAY 006, 031, 123
STERN 036, 040, 063, 071, 079, 095, 107, 110, 171, 236, 242, 243, 305, 307, 323, 338
STRATO 049, 063, 076, 195
SUNKAI 049, 063, 094, 123, 134, 179, 191, 232, 314, 367
SUNSTAR 049, 063, 195, 225, 431
SUNWOOD 049, 063, 195
SUPERLA 379
SUPERTECH 049, 063, 123, 195, 379
SUPRA 195
SUSMU 218
SUTRON 195
SWISSLINE 413
SYDNEY 379
SYTONG 425

T

TACTUS 106
TANDBERG 065, 074, 078, 172, 182, 210, 213, 304
TANDY 050, 096, 102, 123, 190, 307, 379, 413
TASHIKO 018, 050, 107, 143, 177, 192, 201, 379, 419
TATUNG 049, 050, 063, 102, 106, 111, 120, 131, 200, 253, 331, 379
TEAC 049, 063, 076, 195, 380, 416, 426
TEC 040, 050, 064, 168, 195, 213, 218, 242, 243, 379, 413
TECH LINE 049, 063, 195
TECHICA 123
TECHNEMA 113
TECHNICS 099, 315
TEDELEX 379
TEIRON 195
TEKNIKA 042, 327
TELEAVIA 029, 034, 074, 182, 186, 415, 424
TELECOR 049, 063, 107, 123, 242, 379, 423
TELEFUNKEN 032, 049, 063, 064, 074, 082, 182, 186, 187, 218, 392, 424, 436
TELEFUSION 049, 063
TELEGAZI 049, 063, 076, 107, 123, 242
TELEMEISTER 049, 063, 113
TELESONIC 049, 063
TELESTAR 049, 063
TELETECH 049, 063, 195, 213, 413
TELETON 018, 067, 107, 236, 242, 379, 416
TELEVIDEON 050, 075, 104, 107, 113, 148, 379
TELEVISO 425
TEMCO 094
TEMPEST 049, 063, 195
TENNESSEE 049, 063
TENSAI 003, 020, 050, 055, 063, 094, 113, 117, 123, 195, 225, 379, 408, 413
TETUNG 046
TEVION 049, 063, 195
TEXET 050, 195, 379
THOMSON 008, 010, 017, 024, 029, 034, 049, 063, 064, 074, 134, 147, 174, 182, 186, 218, 230, 234, 304, 309, 333, 334, 415, 424, 436

THORN	049, 053, 063, 103, 106, 141, 158, 218, 222, 321, 329, 408, 409, 411, 419
THORN-FERGUSON	032, 073, 074, 076, 080, 082, 103, 121, 158, 306, 319, 321, 322, 328, 329, 357, 358, 364, 375
THRON	117
TMK	143
TOKAI	049, 063, 102, 107, 195, 213, 379
TOKYO	141, 379
TOMASHI	006, 031, 123
TOSHIBA	001, 018, 045, 128, 141, 143, 147, 205, 341, 369, 379, 406
TOWADA	045, 379, 416
TOYODA	195
TRAKTON	076
TRANS CONTINENS	044, 046, 049, 063, 075, 171, 307, 379
TRANSONIC	049, 063, 380
TRANSTEC	379
TRIDENT	379
TRISTAR	123, 364
TRIUMPH	004, 046, 049, 063, 128, 147, 197, 235, 339, 375

U

UHER	049, 063, 069, 080, 090, 113, 147, 148, 163, 236, 242, 307, 392, 407, 414, 421
ULTRAVOX	044, 045, 047, 049, 050, 063, 065, 104, 107, 133, 139, 324, 379, 413
UMA	305
UNIC LINE	049, 063, 165
UNITED	049, 063
UNIVERSUM	003, 004, 012, 018, 020, 049, 063, 074, 076, 094, 107, 131, 155, 163, 165, 172, 195, 202, 206, 210, 213, 235, 244, 245, 246, 320, 357, 375, 379, 406, 407, 408, 413, 416, 421, 428, 429, 437
UNIVOX	049, 063, 107, 121, 213, 324, 409, 411
UTAX	050

V

VEGAVOX	163
VESTEL	049, 063, 107, 125, 364, 379
VEXA	063, 195
VICTOR	174
VIDEO SYSTEM	049, 063
VIDEOLOGIQUE	031, 123, 379
VIDEO SYSTEM	049, 063
VIDEOTECHNIC	113, 379
VIDEOTON	107, 418
VIDIKRON	045
VIDTECH	018
VIPER	213
VISIOLA	379
VISION	049, 063, 113
VISTAR	172, 236
VOLTEC	074
VORTEC	063
VOXSON	049, 063, 065, 090, 163, 171, 307, 324, 407

W

WALTHAM	049, 063, 163, 182, 307, 379, 418
WATSON	049, 063, 107, 113, 123, 195, 244, 245, 246, 423, 431
WATT RADIO	045, 050, 068, 104, 107, 121, 139, 150, 336, 379, 416
WEGA	018, 049, 063, 139, 143, 324
WEGA COLOR	065, 088

WEGAVOX 195
WELTBLICK 063, 113
WESTINGHOUSE 063, 094
WESTON 168
WHARFEDALE 049, 063
WHITE 045
WHITE WESTINGHOUSE 049, 050, 063, 113, 213, 379
WINCO 426
WINDSTAR 006
WINTERNITZ 361

X

XRYPTON 049, 063

Y

YAMISHI 006, 049, 063, 123, 379, 380
YOKAN 049, 063
YOKO 049, 050, 063, 076, 123, 195, 379, 413, 421
YORX 123

Z

ZANUSSI 036, 040, 063, 071, 079, 095, 110, 171, 236, 305, 307, 323, 338, 379
ZOPPAS 036, 040, 071, 079, 110, 171, 307

A.2 Code list for DVD players

3 DLAB 072

A

AIWA 075
ALBA 087
AMSTRAD 085
A-TREND 086

B

BLUE SKY 080
BUSH 078, 079, 082, 085

C

CINE ULTRA 082
CYBER HOME 086

D

DAEWOO 083
DENON 002, 019, 022, 034, 051
DENVER 082
DENZEL 077
DIGITOR 079
DIVIDO 083
DUAL 076, 077

E

ELTA 079
ENZER 077

G

GE 003, 004
GRUNDIG 072, 080

H

HARMAN KARDON 001, 066
HITACHI 077

J

JMB 080
JVC 006

K

KENWOOD 007, 034, 043, 050, 069
KISS 077

L

LAWSON 083
LECSON 081
LENCO 082
LG (GOLDSTAR) 005, 055, 064, 070
LIFETEC 076
LOGIX 083

M

MAGNAVOX 009, 033, 056
MANHATTAN 083
MARANTZ 033, 059, 072
MATSUI 076, 080
MEDION 076, 083
MICROMEDIA 009
MICROMEGA 072
MINOWA 083
MITSUBISHI 023, 036
MONYKA 077

N

NAD 010, 062
NEUFUNK 077

O

ONKYO 009, 015, 048
OPTIMUS 050
ORION 080
ORITRON 076

P

PANASONIC 024, 025, 030, 034, 035, 044, 052
PHILIPS 009, 033, 056, 072
PHONOTREND 082

PIONEER	010, 012, 020, 038, 041, 046, 065, 071, 074
PROLINE	076
PROSCAN	003, 004, 037
PROVISION	082

R

RAITE	077
RCA	003, 004, 018, 037
REC	034, 078
REVOY	082
ROADSTAR	078, 079, 082

S

SANSUI	080
SCAN	083
SCHNEIDER	076
SEG	077, 085
SHARP	021, 028, 050
SHINCO	087
SM ELECTRONIC	079
SONY	015, 029, 043, 045, 067
STANDARD	076

T

TEAC	087
TECHNICS	034
TENSAI	076, 079
TEVION	076
THOMSON	003, 004, 073
TOKAI	077
TOKIWA	083
TOSHIBA	009, 010, 033, 057, 058
TV PROJECT	008

U

UNIVERSUM	085

W

WALKVISION	087
WESDER	082
WHARFEDALE	081

Y

YAMAHA	016, 017, 030, 034, 063
YAMAKAWA	077, 084

Z

ZENITH	005, 009, 033, 055, 064, 083

A.3 Code list for audio-video receivers

A

ADCOM	082, 092, 225, 161, 023, 148, 149
AIWA	170, 018, 104, 202, 203, 213, 211, 188
AKAI	189
ANTHEM	127, 128
ARCAM	141, 255
ATLANTIC_TECHNOLOGY	134
AUDIO_FILE	071

B

B&K	096, 097
BOSE	070, 170, 224, 147, 227, 199
BOSTON_ACOUSTICS	246

C

CARVER	006, 028, 061, 071, 201, 214, 226, 185, 022, 077, 050
CLARION	026

D

DELPHI	251
DENON	109, 215, 230, 234, 002, 121, 133

E

ELAN	057, 090
ESCIENT	229

F

FISHER	047, 214, 182
FLEXTRONICS	207
FOSGATE_AUDIONICS	231, 134

G

GOLDSTAR	008

H

HARMAN_KARDON	231, 233, 153, 154, 118, 119
HITACHI	020

I

INTEGRA	029

J

JVC	163, 191, 114, 034, 091

K

KENWOOD	026, 066, 145, 192, 182, 005, 037, 196, 252
KLH	123
KRELL	150, 072, 197, 222

L

LEXICON	120, 235, 236, 237, 159, 160
LINN	124, 206
LUXMAN	137, 139, 052, 165, 115, 004, 009

M

MAGNAVOX	086, 164, 152, 208
MARANTZ	006, 028, 031, 040, 063, 185, 186, 015, 056
MCINTOSH	238, 053
MERIDIAN	100, 012, 013
MITSUBISHI	242, 243, 204
MONDIAL	157, 158, 042, 043, 081, 112
MYRYAD	030, 099

N

NAD	186, 113, 038, 216, 210
NAKAMICHI	111, 244, 245, 172, 183, 054
NIRO	135
NILES	241

O

ONKYO 029, 017, 046, 108, 080, 209
OPTIMUS 026, 041
OUTLAW 134

P

PANASONIC 032, 195, 219, 177, 098, 221
PARASOUND 129, 130, 132, 003, 103, 105, 125, 126
PHILIPS 249, 250, 063
PIONEER 014, 039, 044, 069, 168, 116, 035, 078
POLKAUDIO 251
PROCEED 144, 021

R

RCA 010, 048, 117, 156, 067, 055
REALISTIC 019, 073, 075
ROTEL 074, 083, 085
RUSSOUND 223, 239

S

SAMSUNG 016
SANSUI 040, 048, 110, 065, 228, 063
SANYO 047, 059
SCOTT 019
SHARP 026, 094, 131, 175
SHERWOOD 024, 102, 106, 246
SONY 018, 247, 248, 166, 101, 184, 218, 025, 179, 180, 220
SOUNDESIGN 036
SUNFIRE 142, 143, 146

T

TEAC 005, 019, 049, 111, 212, 217
TECHNICS 122, 193, 219, 178, 177, 200, 254, 007
THETA_DIGITAL 136
TOSHIBA 060, 087, 033

Y

YAMAHA 026, 253, 169, 067, 173, 205, 011, 232, 089, 027, 051, 181

Index

1st Audio Language, 34
1st Subtitle Language, 34
2nd Audio Language, 34
2nd Subtitle Language, 34
4:3, 36
16:9, 36
22 kHz, 21

A
A/V Output, 35
Access Control, 41
Active, 47
Add to Fav, 50
Advanced, 27
After next program, 64
After this program, 64
ALL, 28
Alphabetic, 50, 58, 70
Animation, 46
Astra, 101
AUDIO L, 16
AUDIO L/R, 10
AUDIO R, 16
Auto, 25
Auto Recording, 44, 75
Automatic Power Down, 47
AutoStart, 98
avi, 80

B
Battle Tank, 81
Battle Tank (Network), 86
Battle Tank (Single), 81, 82
Blind, 26
bmp, 97
Brightness in Operation Mode, 46
Brightness in Standby Mode, 46
Button, 4
Buttons, 104

C
C band, 20
C/C++, 96
CAM, 7
CAS Only, 39
CAS only, 28
CAS–FTA, 50, 58
Censorship, 41
Center, 36
Center extract, 37
Change PIN Code, 41
CI, 7
COAXIAL, 16

Common Interface, 7
Component, 35
Conditional Access Module, 7
Connection Type, 21, 90, 91
Cut, 76
Cygwin, 96

D
Date, 67
Daylight Saving Time, 39
Default, 50, 58
Delete, 50, 58
Descramble Mode, 44, 75
DHCP, 90
DiSEqC, 21
DiSEqC 1.0, 22
DiSEqC 1.1, 22
DiSEqC Command Mode, 23
Display Format, 36, 37
DivX, 80
Dolby Digital, 38
Duration, 64, 67
DVB, 1
DVB-S2 8PSK, 26, 27, 29
DVB-S2 QPSK, 26, 27, 29

E
Edit Favorite List, 59
Edit Service List, 57
Electronic Programme Guide, 53
ENERGY, 85
EPG, 53
EPG Gathering Time, 42
eSATA, 11, 62
Every Day, 66
Every Weekday, 66
Every Weekend, 66
Export System Data, 31

F
Factory Setting, 30
Fav–NoFav, 50, 59
FEC, 26, 27, 29
File Management, 92
File Name, 67
Font Color, 45
Font Size, 45
Format Hard Disk, 77
Frequency, 23, 24, 26–28
Front Display, 46
FTA + CAS, 28
FTA only, 28
FTA/Scrambled, 28
FTA–CAS, 50, 58
FTP Server, 93
Full, 36
Full Scroll, 46

G
Gateway, 91
gcc, 96
GMT, 39
GMT Collection, 39
Goto, 23
Goto the position, 24

H
Hard of Hearing, 34
HD Output, 35
HDMI, 11, 14, 35
high definition, 35
Home Transponder, 42

I
.idx, 44

Import System Data, 31
Info Box Display Time, 45
Info Box Position, 45
information box, 51
Instant Recording Duration, 43
IP Address, 91
IP Setting, 90

J

jpg, 80
Jump Time Interval, 44
Jump time Interval, 72

K

K_u band, 20
keyboard, 61

L

LAN, 11
Language, 33
Letter Box, 37
Linux, 96
LNB, 20
LNB 1 IN, 10, 13, 20, 21
LNB 1 OUT, 10, 13, 14, 21
LNB 2 IN, 10, 13, 14, 21
LNB 2 OUT, 10, 14
LNB Frequency, 21
LNB Power, 21
LNB Setting, 20
Local Time, 39
Lock, 50, 58, 71
Locked, 71
Loop Through, 21

M

Main Display Scrolling, 46
Manual, 26
Media Player, 81
Media Subtitle, 44
MediaHighway, 42
MediaHighway EPG, 42
Menu Language, 33
Microsoft Windows, 96
Mini A, 22
Miscellaneous, 47
mkv, 80
Mode, 39, 66, 67
Modulation, 26, 27, 29
mono, 38
Motor Control, 23
Motorized DiSEqC 1.2, 22
Motorized DiSEqC 1.3, 24
MOVE, 85
Move, 24, 58
Movement, 23
MP3, 80
MP3 Player, 80
mp4, 80
Multi, 26
Multi Sat Mode, 26
multifeed, 54
multiplex, 1
My Latitude, 24
My Longitude, 24

N

Network Firmware Upgrade, 100
Network Search, 25, 26
NEW, 59
No block, 41
Normal, 39, 44
normal-screen television, 36

O
ON/OFF, 11
Once, 46
One Time, 66
on-screen display, 45
OPTICAL, 16
OSD, 45
OSD Transparency, 45
OTA Firmware Upgrade, 101
Other, 21

P
packet identification, 27
Parental Control, 41
Part Scroll, 46
Passive, 3, 47
Password, 91, 93
PID, 27
Pilot, 26, 27, 29
PIN, 41
Playback, 44
Polarization, 26, 27
port forwarding, 89
POWER, 85
Primary DNS, 91
Program Files, 97
program files list, 97
progress bar, 68
Provider, 50, 59

R
radio services list, 57
Record, 66
Recorded Program, 65, 70, 72, 74
recorded programme list, 69
Recording, 43
Recording Drive, 43
Recover System Data, 30
Rename, 50, 58, 71
Reservation, 66
Reset Service List, 32

S
S/PDIF, 16, 38
S/PDIF COAXIAL, 11
S/PDIF OPTICAL, 11
SAT Name Edit, 29
SAT/TP Edit, 29
Satellite, 39, 49, 50, 58, 66
Satellite Angle, 24
Satellite List, 26
satellite list, 20
Satellite Name, 20, 21, 23–27, 29, 42
Save, 76
SCART, 35
SCART Output, 37
ScreenCapture.tap, 97
Search Mode, 25–28
Searching, 25
Secondary DNS, 91
Separated, 21
Service, 66
Services Copy, 28
services list, 48
Show Provider, 50
Size, 70
SMATV, 25, 28
.smi, 44
Sort, 58
Sorting, 50, 70
Sound Mode, 38
.srt, 44
Standby Mode, 3, 47
Start, 101

Start firmware upgrade, 100
Start Search, 28
Start Time, 67
Starting Position, 44
stereo, 38
Store, 23
Store System Data, 30
.sub, 44
Sub Display Content, 46
Subnet Mask, 91
subtitle, 53
Symbol Rate, 26–28
Sync, 45

T
TAP, 96
tap, 96
TAP API, 96
teletext, 53
television services list, 58
Text Scroll, 46
Time, 39, 42, 70
Time Offset, 39
Time Padding of Timer Recording, 43
Time Shift Storage, 43
Time Shifting, 43, 55, 64
timer list, 66
Timer Recording Duration, 43
Total block, 41
Transponder, 23, 24, 39, 50, 59
transponder, 1
Trick Mode Level, 44
Tuner, 49
Tuner 1, 21
Tuner 1 to Tuner 2, 28
Tuner 2, 21
Tuner 2 to Tuner 1, 28
Tuner Select, 20, 23, 24, 42, 66
TV, 11, 15
TV Aspect Ratio, 36
Type, 66

U
Unlimited, 46
USALS, 23
USALS Setting, 24
USB, 11, 62, 99
USB Firmware Upgrade, 99
User, 23
User ID, 91, 93
User Info, 91, 93, 94
User Select, 39

V
VCR, 11, 17
VCR SCART Type, 37
Vega, 31
VIDEO, 10, 16
Video Format, 35
vob, 80

W
Web Server, 91
Weekly, 66
wide-screen television, 36

X
XviD, 80

Y
Y/Pb/Pr, 11

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